

Apologia

Or, *I told you it was a long story but you said you still wanted to hear it*

Before I launch into this, a couple notes. First, if “atheist” implies anything to you other than the fact that I don't believe in god, please get it out of your head. Think of me as a “non-theist” if it helps (I'll use both words interchangeably). Describing what atheists believe is an endeavor as unlikely to succeed as describing the behavior of those whose hobby is “not collecting stamps”, so I'm definitely not attempting it here. Second, even though I've sprinkled a few references here and there, for the most part this is an overview of what I think and not a detailed thesis (in other words, this is pretty much all off the top of my head)¹. I may have forgotten details since I last looked up various issues, so if I say something that's not quite accurate, let me know about it, it's probably a mistake. There are also a few attempts at humor sprinkled here and there; don't worry if they don't seem funny. Basically, this will be a rambling summary of my thought processes over the last few years.

My goal is to make my beliefs² align with reality. I wouldn't have said it quite that way until recently—but if you'd asked me a decade ago if that was something I wanted, I would have said “yes”. Making your beliefs match reality is difficult. Humans don't *like* to change their minds. It *hurts* to change your mind. Some small amount of comfort can be taken from knowing that you³ can always live with what is true—you already are, whether you happen to currently believe it or not.

My first brush with rationality was mostly accidental; I liked to think of myself as an open-minded person and it seemed necessary

¹ Also, I really like documents with footnotes.

² Throughout this document, a “belief” refers to a piece of information (i.e., a proposition) you believe to be true, not to believing what's in the bible. I'll try to use the word “faith” for that sort of thing.

³ If it's possible to read them that way, my “you”s are meant in the general sense, not specifically to you the reader.

to read a book with a dissenting viewpoint in order to maintain the illusion. The particular issue⁴ doesn't really matter. As it happened, the author treated those of my persuasion quite derisively in the book, and as I read I underlined and highlighted all the bits I disagreed with—gaining ammunition for the author's upcoming excoriation on my blog. But facts are stubborn things, and I *was* paying attention—about halfway through the book I realized that this pretentious jerk of an author was *right*, and I *was* and had been completely and totally *wrong*. There would be no excoriation. Disgusted, I stopped reading the book.

I learned some things from that: truth can come in jerk-sized packages; the truth might not be what I want it to be; and no one is *obligated* to tell me the whole story about anything— if I want to know the truth, I have to *go out and look for it*, and I'll have to look for it in the ideas of *those who disagree with me* in addition to those who do. If I had never gone outside of my comfort zone, I'd still be endorsing a view that I now consider embarrassing⁵.

It'll be easy for you to read that paragraph and go right into the next one, but pause for a minute first. It sounds like a minor thing now, and saying it in a few sentences almost trivializes it. Changing your mind carries with it a host of emotions; How could I have been so dumb? Why didn't I look this up sooner? Why did I defend this argument to *that* person in *that* way, when I now see that not only did they have the correct position (and I was too stubborn to actually *listen* for what they were trying to say instead of nitpicking on the bits of fluff that they messed up) but I probably *hurt* them and damaged a friendship? *Why could I "win" debates on this when I was clearly in the wrong?* If you've never changed your mind on an issue that's important to you, you'll have

⁴ Was the KJV the perfect translation?

⁵ Before reading that book (*The KJV Only Controversy* by James White), I'd read pretty much everything from the “KJV Only” side of things. Turns out that all that stuff left out some important details; the authors I'd read either didn't properly understand the history, understood only the parts favorable to their view, or were being deliberately misleading. I prefer to think one of the former possibilities is true.

to imagine all this and more echoing through your head for the days and weeks following the event. It hurts. It hurts because it *matters*. If the KJV is god's preferred translation and others are the result of the devil's deception, that has *implications* for what you should actually be doing. The post-mind-change you actually thinks the pre-mind-change you was out there doing stuff that was incorrect or pointless if not *morally wrong*.

At some point around that time if not earlier, I discovered *New Scientist* magazine and started following their RSS feed⁶. They kept reporting stories like evolution was *true*; I suspended my disbelief to go along with the articles, much like one can believe in elves while reading Tolkien. But unlike the contents of a fictional work, eventually all that stuff I read started adding up to a coherent view on the subject that had no relation whatsoever to what I'd been told evolutionists were supposed to believe. At length something prompted me to look up a reference for some bit of creationist lore. One website led to another, and all hell broke loose: not only were the creationists *wrong*, but they were at best intellectually dishonest, and at worst *intentionally deceptive*⁷ (to this day, I'm not sure which).

This was a major crisis for my faith. The creationists (the sort I grew up hearing and reading, anyway) actually frame things in such a way as to leave *no middle ground*. They painted the theistic evolutionists as being even worse than the normal sort, as in addition to their "ignorance" they "distorted the bible". Well, I wasn't about to abandon my entire faith. In addition to that sort of nonsense, I'd also heard that all truth is god's truth⁸—so if evolution actually occurred—as every possible physical evidence

- 6 Science and technology have always fascinated me. You knew that, right?
- 7 For example, the argument that the moon cannot be explained by those who believe in an old earth because if one extrapolates that far into the past it would have been within the Roche limit was answered in the 60's or 70's (by doing the math—which admittedly is difficult—*correctly*) but was still being repeated in AiG magazine as late as 1998; they may still be saying it for all I know.
- 8 Well, duh. It's not like there could be two alternate systems of truth. But it's a nice way to think of it.

seemed to show⁹—and if the bible is true—as I believed strongly—then the bible *must* be compatible with evolution. To deal with this, I had to learn something very important: “what the bible says” and “what I believe the bible says” are not necessarily the same or even correlated¹⁰.

There are sincere¹¹ people out there who believe the bible says X, and they are *wrong*, and the fact that they are wrong does not necessarily mean the *bible* is wrong, it just means they failed to get whatever it says into their heads *correctly*. The translation from scripture to brain is *apparently not error free*¹². The ever popular bumper sticker—“God said it, I believe it, that settles it”—totally misses this crucial point: how do you know that the concept in your head representing what god said is actually, in fact, what god said? How do you know that you're not consistently misreading the bible in a way that makes you think god said “creation” when in actuality he must have said “evolution”¹³?

- 9 I'll summarize that evidence later. If you can pretend evolution is largely correct while reading this document, it might be easier to understand my thought process.
- 10 Which is an application of the general principle that *what the evidence says* and *what I currently happen to believe* are not necessarily the same thing (or even correlated, depending on the level of ignorance involved).
- 11 I know there are—I was one a couple paragraphs ago!
- 12 Once you grasp this on an intuitive level, you get really suspicious of any sentence that sounds like “God told/showed me X” or “I felt led [by god/the holy spirit] to do/say X”: how can whoever says that be so certain?
- 13 An objection Christians commonly throw out at this point is “but the bible promises that the holy spirit will lead us into all truth.” This does not blunt the force of this point in any way: How do you know that what god meant when he wrote that verse is what you mean when you think it? And assuming that you're right, how do you know that the way in which he will guide you into all truth is not by applying principles of rationality? Or more simply: it says “lead” not “directly implant”. Do you think you have to *work* at it? If no, why not? And if yes, then shouldn't you apply the techniques that work for knowing things in general (i.e., rationality/the scientific method/etcetera)? And if you really believe (as this objection implies) that you *can't possibly go wrong*, then why don't

Eventually, I pieced together a framework that could still hold my faith together¹⁴. With a moment's reflection *anyone* can see that Genesis is not a science textbook; whatever god is trying to communicate there, it is not science. The original recipients of the text wouldn't have even been able to understand the science; it requires too many *inferential leaps* from the commonly available background information¹⁵. This rules out the supposed theistic evolutionist's view that the AiG people like to skewer—that each day in Genesis represents a certain amount of real time—it really doesn't make any sense; you lose the sense that you're being “literal” and don't really gain anything (scientifically it doesn't make the passage more intelligible).

But dismissing the whole first few chapters as a fairy tale wasn't satisfactory, either. They are referred to later in the bible and the characters seem to take them as being true. One can even make a case that some theological points depend on the story of the fall being true¹⁶. So I needed an explanation that allowed the story to be “true” in some tangible sense without making it out to be an account of the actual events that actually took place. My answer eventually came when I ran across the idea that different portions

of the bible might be written in different genres. So, the gospels really are trying to be history, but psalms is definitely poetry, and Leviticus is law. I came across the specific genre that George MacDonald¹⁷, C.S. Lewis, and Tolkien used, which the latter called *mytho-poetic*. That is, it's a myth, but it's a *true* myth. Like a poem, the surface reading has no truth value¹⁸; instead, it has a deeper meaning which only appears when you look at it from a distance. So I settled for the answer—and I still think it's the best available answer for the Christian—that Genesis is god answering “why” and not “how”, and it only sounds like the latter to us because now that we have science, those passages look like science¹⁹. The “deeper meanings” are theological ones, and the correct ones are the ones that Jesus and the new testament writers draw from the Genesis account. So there *really was* a fall, even if the talking snake and the fruit were not actually involved²⁰, and god *really did* make

all Christians agree on *every* bit of doctrine?

- 14 A problem with intelligence is that the more you have, the more you are able to put towards the task of deceiving yourself, and I had enough to accomplish this for a number of years still.
- 15 An “inferential leap”: When you tell your tribe that there's a yummy dead animal in the gorge over the hill, that's one inferential leap. They all know where the gorge is, what a dead animal is and why it is yummy; you're just providing one new fact. Now if you tell them the animal is caught in a tree and you'll need ropes, and no one has ever used a rope for that purpose before, that's a second inferential leap. Humans can follow you over one or two such leaps, but more than that and you completely lose people (or worse, they think they understand but don't). To go from 2000 B.C. background knowledge to evolution would probably require hundreds of such leaps.
- 16 The AiG people will be happy to make that case for you, although they overstate the consequences. The other group of people that overstate the consequences are atheists. Neither group has a motive to *try hard* to reconcile the two requirements.

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- 17 I think the book *Lilith* by MacDonald might be the best example of the genre. The story is fictional, but it is also *true*. Please do yourself a favor and read it (and excuse him for the 19th century attitude towards women).
 - 18 “so much depends upon /a red wheel -barrow /glazed with rain -water /beside the white chickens”— true or false? If you answer either way it shows you don't understand the nature of poetry. You can only say “true or false” in response to the concepts behind the poem. As it happens, I still can't make heads or tails of this poem by William Carlos Williams, even after reading an explanation of it. Sometimes you have to wonder if the “deeper meaning” is *really there* to be found: is everyone else making it up or am I poetically stunted? In my case, the latter is usually a safe assumption...
 - 19 You may be interested to learn that the literal 7-day, 6000 years ago creationist view didn't even really exist until the 1800's. The early church fathers, as far as we can tell, took the creation stories as being allegorical.
 - 20 Note that this is totally different than an allegorical interpretation of the passage. An allegory would require each feature to represent some corresponding item in the “real” story (e.g., the fruit=sex was a popular way to read it at one time). It's also not a symbolic interpretation, where a few elements of the story symbolize something else (e.g., the order in which eve saw the fruit, wanted it, and took it symbolizes the way we are all tempted and sin). This was a foreign concept to me and it's worth taking some time to try and understand it even if you don't agree.

everything, even if the way “make everything” happened is that he let evolution run its course (or maybe, I thought at the time, he tweaked it once in a while), and man *really did* rebel, even if the earth was never completely submerged in water. The idea is that the central points of the story all *really happened*, but the story is not meant to convey or even resemble the *way* in which they happened²¹.

I still felt vaguely uneasy, but I was able to maintain the belief that I was rational and my faith, too²². I thought about the issue off and on for *years* to come up with that answer; not having a decent answer disturbed me a lot. The cognitive dissonance was hard to live with.

During that time, some other events prompted me to read up on the Calvinism/Arminianism debate. In the midst of that search I ran across Michael Spencer, who ran his own blog and a group blog²³. He was a former Calvinist with a perspective on Christianity that I could easily relate to. Reading his sites (and many others), I developed a much more advanced sense of how to (and how not to) “do theology”²⁴, and how to relate theology to the rest of your life. The Boar's Head Tavern provided excellent examples of how to (and how not to) conduct an argument, and I saw the difference between arguing to *prove that you are right* and arguing to *figure out what the truth is*. Michael Spencer was a particularly good example of how to understand where people are at and build a bridge of small inferential leaps¹⁵ between that position and your own. This is a good skill to have if you want to actually seek out the truth and discuss your findings with people: just because *you* can ignore the jerky package and look for the truth inside does not

21 I don't think I really understood poetry in general until I understood this.

22 I really wonder: if I'd heard this view all my life instead of the creationist one, would I ever have been inspired in the first place to do the deeper investigation that this issue sort of triggered?

23 internetmonk.com and boarsheadtavern.com, respectively.

24 The mytho-poetic reading of Genesis that I just advocated is an outworking of this, although I don't know if Mr. Spencer would agree with everything I just said.

mean your interlocutors can (it's a rare skill, after all)—and there's no need to give them *excuses* to disbelieve you.

Perhaps the most important thing I learned from this phase of my reading²⁵ was the idea that a belief system can be *brittle*. That is, if you start with one or two propositions and build everything you believe on top of those like a tree— if you do that, when one of those basic propositions turns out to be wrong, misguided, or incomplete, you have a *lot* of branches to repair. I intuitively knew what that was like; creationism had been one such proposition in my belief system.

Calvinism, as a system, was constructed in a similar manner. But it's a fairly complicated system, so this is not immediately obvious. It is also logically consistent (at least, more so than the views of an average Christian), and this masks the fact that as you go down the twists and turns solving the logical problems, the god you find waiting for you at the end is a *monster*²⁶. And if you should happen to notice this, you have a major problem: if you change any of your

25 Which overlapped with the next phase, continuing a little beyond Mr. Spencer's tragically early death to brain cancer. His first book was published posthumously. I want to read it some day, but I never bought it. I think it will make me cry.

26 Very few Calvinists would agree, of course. I don't think any of my readers are Calvinists, so I'll put this little overview in a footnote. Calvinists have five axioms: humans are so inherently evil that we cannot even *desire* to be good; that god chooses (“elects”) which humans he will save apart from anything they have done (i.e., arbitrarily); that Jesus' death was only for those god intends to save (though most Calvinists are a little shaky on this point); that humans cannot *resist* god's election should he choose them; and that once god elects someone, it's impossible for them to revert to their unsaved state. (To remember this, think TULIP: Total depravity, Unconditional election, Limited atonement, Irresistible grace, and Preservation of the saints.) As you can well imagine, with axioms like those a *very complicated* system is required to make everything work out logically. A large part of the system is attempting to get around the fact that “unconditional election” logically implies that *god arbitrarily damns people*, and another large part of it tries to work out that we still have free will in spite of this election.

beliefs, your entire tree of beliefs falls to pieces. You have to start over almost all the way at the beginning²⁷.

Further thought on the subject led me to the conclusion that any belief system built like a tree—with relatively many beliefs (“propositions”) depending on relatively few beliefs (“axioms”)—will, when it has a problem, likely have a catastrophic problem. And considering that a) the chance that everything I currently believe is actually exactly correct is nearly 0%; b) you can't be *more* sure about a dependent belief than you are about the belief it depends on²⁸; and c) in a tree any error near the root will get larger in every subsequent layer built on it²⁹, the chances that any given belief tree is very correct start looking quite grim. My conclusion, then, was that any particular belief tree has a good chance of being wrong—and if it is, probably catastrophically so.

A better way to structure your beliefs is like a web: each belief depends on a few other beliefs—but there is no central point of failure, and no chain of beliefs is so large that changing one will

27 Since that's very painful, usually people rationalize away information which would trigger such an event.

28 For example, you can't be more certain that there's a bird sitting on your roof than you are that you have a roof at all.

29 Imagine you are laying tile. The right way is to put a chalk line down the middle of the floor, and line up the first course of tiles against it; that ensures that you start with the best reference possible and your errors accumulate near the walls where they are hard to notice. The wrong way is to start at a wall and line up every tile with the one above it. Why is that wrong? Because each successive course of tile inherits the errors of every course above it. No individual error is noticeable, even with a straight-edge. But add them all together, and by the time you get to the other side of any decently sized room, the tiles won't line up at all, and the lines will be obviously not straight even to people who don't know anything about tile.

Or if you're a computer programmer type person, consider why when you do math with integers, you always do the division in an equation last, even though division and multiplication are commutative: division in the domain of integers causes imprecision, and you need the errors to get introduced at the last possible place so they don't start accumulating anywhere.

affect everything you do and think. Such a system ensures that any error (and there definitely will be errors) does not invalidate the entire web of beliefs. Even the belief that this sort of thinking seems to depend on—that the universe is coherent enough to form beliefs about—would not cause a catastrophic upheaval were it to somehow be disproved; you would begin looking for ways to take advantage of the universe's inconsistencies, and continue doing what you currently are where the universe's perceived coherence works to your advantage³⁰. And that's not likely to be a problem; I'd say that the evidence for a coherent universe is extremely good³¹.

So, during the years I was reconciling evolution and Christianity, I was restructuring my beliefs into a web (though I may not have consciously noticed it at the time)³². Formerly, I had an axiom: the bible is god's word. Now, I had a few beliefs: the bible is a written record of god's interaction with humanity. It is true³³. It is not a

30 And if the universe is so incoherent that *that* doesn't work, then it doesn't really matter *what* you believe anyway...

31 Not only do all of my senses behave consistently, but everyone else's seem to, too, and every test any scientist has made seems to behave consistently as well. Note that it's not possible to tell the difference between a universe that's “really there” and a hallucination constructed entirely in my head but behaves exactly the same way— so the distinction is not important. Rationality/the scientific method work in either case.

32 Which way are your beliefs structured? I don't know what the relative frequency of the two options I've mentioned are, or if there are other choices. Where I'm using the word “web”, technical literature would probably say “network”, and computer scientists would call it a “directed graph”. As I write this, it occurs to me that I should probably look up the technical literature to see how, or if, they talk about this sort of thing. So much to learn, so little time...

33 I did not use the word “literally” in there, for a number of reasons. First, what one thinks the bible “literally” says is subject to one's interpretation. Second, “literal” interpretation is clearly incorrect for many passages, and almost everyone who claims to interpret the bible literally doesn't actually interpret *all* of it literally. For example, when Jesus suggests that you should pluck your eye out if it offends you, almost no one thinks that he is *actually* suggesting that you should *blind*

science textbook. Jesus was God's son. God has the attributes Christians usually ascribe to him (omnipotence, omniscience, omnipresence, omni-benevolence, etc.). And many other similar beliefs. Any one of these can be changed, modified, corrected, or improved without causing all of the others to be completely invalidated.

Perhaps the first test of my new-found web-of-belief system was integrating a book I started³⁴ reading, "Revelation: Four Views", edited by Steve Gregg. It was clear to me that my own beliefs on the subject³⁵ did not account for all the available evidence, but it

yourself. And very few think that the verse in Psalms ("Blessed shall he be who takes your little ones and dashes them against the rock"—137:9, ESV) is an actual *instruction*. Anyone in their right mind will interpret that as a poetic expression of *grief* (or come up with some other way in which it is not "literal"). There is such a thing as *truth* without *literal truth*. When I say I believed the bible was *true*, I mean I thought that it was true in what it means to say, however difficult it is for us to determine what that is. Those who want to use the word "literal" will call that process of determination "interpreting according to context" or something like that, but we all do it.

So why do people say they "literally" believe the bible, if that's an incomplete description of what they actually do? I believe it functions as an "applause light": it tells your listener that *you are on their side*, that side being the side that *really really* believes the bible. I am still on that side at this point in the story, but I think it's more honest to say you'll interpret the bible the most faithful way you possibly can without necessarily requiring that to be "literally".

34 I had to return it and never finished it! It was well done, you should read it if you're interested in that sort of thing.

35 I was raised believing, and had spent a not-insignificant amount of time learning about, the pre-trib, pre-millennial Christian view of the end times. This view is a relatively recent development in Christian theology (it started in the early 1900's, if I recall correctly), and in my opinion it results from people mistaking the applause light "I believe the bible literally" (see note 33) for its literal meaning. Since the end times haven't happened yet, there is little to constrain one's interpretation, and this view is the result. My confidence in this view was already pretty low, actually: years ago, I had started reading the "Left Behind" series, a popular-level fictional outworking of those views. I liked it at first, but by the time I got halfway through book 9 it occurred to me that I didn't

also seemed that the other views each had large flaws as well. I pushed the whole business into the category "I don't know, and it doesn't matter much" without the rest of my beliefs suffering in the slightest.

The belief web was a great development for my faith, and it allowed me to continue having faith for several more years. Now, I could admit to facts, any fact I wanted to, without endangering the rest of my beliefs. I could freely allow myself to believe whatever the evidence best supported without fear, because my belief system did not depend on any one single item being true. So, for example, when I noticed that all the atheists I knew (admittedly a small sample, but a data point none the less) were easily as moral as the Christians I knew, it just weakened my belief that moral authority derived from the bible—it did not cause a crisis of belief³⁶. When I really thought about it, the fact that the gospels in the new testament were almost certainly written after 70 AD, at least an entire generation after the events they portray³⁷, I—instead of rationalizing that knowledge away or ignoring it—was able to incorporate it into my belief system as some slight evidence against the verity of the story and not an earth shaking discovery³⁸.

For anything I changed my mind about, there were still plenty of other reasons to believe. As someone who cares about having my belief system match reality, this was a very freeing position to be in. So, with this new-found freedom to always pick the position that best matches the evidence, what conclusions did I come to? I'll demonstrate by going over a number of examples. None of the

know what was going to happen, but I certainly couldn't see *this* happening in any sane universe— and never finished the book. (Definitely a sign of poor fiction if I was only reading it because I agreed with the authors!)

36 If it would have caused such a crises—as it may have formerly—it probably would have been extremely difficult to admit it at all.

37 Yes, really— any honest biblical scholar or historian will say so (70 AD might even be a *generous* date). Some of Paul's letters were written earlier, but they don't actually *tell the story*.

38 As it was for, say, Bart Erhman, who lost his faith over this issue and recently wrote several books (which I haven't read) about it.

arguments I'm about to summarize are inventions of my own, most of them are so common that there are standard lines of argumentation for both sides. If you find any of them interesting, and want to read further, there's no shortage of information about them on the internet. OK. So, first, I'll briefly go over a few of the philosophical debates.

The cosmological argument is roughly:

1. Everything that exists was caused somehow.
2. The universe exists, therefore it must have been caused.
3. The only thing that could cause the universe is a god.

That's all well and good until the jerk at the back of the class shouts out, "Oh really? Who created god?" More technically, the argument has a problem known as "infinite regress"³⁹; the theist has to explain why god does not require a creator. If they just *assume* that (by saying that god always exists or is eternal, etcetera), the jerk at the back of the class will want to know why the non-theist can't just assume the same thing about the universe. Adding a god leaves you with the exact same problem, just a level removed.

A recent attempt to fix the problem is known as the "Kalam cosmological argument". It starts out like this:

1. Everything that begins to exist must have a cause.
2. The universe began to exist.

There's a lot more to the Kalam, but for our purposes we can stop here. The first assertion makes a distinction between "things that began to exist" and "things that exist but did not begin to exist". We can ask ourselves, what belongs in the second category? If god is the only member of the second category, then this is equivalent to saying "everything except god must have a cause",

39 Ah, I know! Meta-god created god. What? Oh, good point. Meta-meta-god must have created meta-god. And yes, of course: meta-meta-meta-god created meta-meta-god. It's turtles all the way down!

which of course is begging the question⁴⁰. William Lane Craig seems to be the person to read for a defense of the Kalam. I have only read summaries of his stuff⁴¹.

The non-theist can believe a number of things about the universe. Some scientific theories allow for infinite cycles of gravitational compaction followed by a new big bang, though I don't think those are currently in favor. Or we can wonder if there really even can be a meaningful way to "cause" something without time (which is a property of the universe). And recently, quantum mechanics has shown that on that scale, events can happen which *don't* have causes⁴².

After discussing the cosmological argument and hearing that, the next logical question is, "OK, if the universe doesn't have a cause, how or why can anything exist at all then?" The question assumes that the default state of existence is "nothing", and if we see "something", we have to explain it. But nothing in our universe warrants that assumption: nowhere in nature is there truly "nothing". Even the emptiness of space, according to our best understanding of physics, is a seething mess of virtual particles popping into existence and then annihilating each other again. So we have to wonder if it even makes sense for there to be "nothing". And as above, we have to wonder if the concept of "before" can be meaningful when applied to the universe that contains time.

The fine-tuning argument is next. The first version of it that I ever encountered started by noting that everything in our solar system is *just right* for us humans to live here, and if you changed

40 "Beg the question" does not mean "to raise the question" as it is commonly (mis)used. It is the name of a fallacy, and it means "to assume the very thing you're trying to prove". Also—there are other ways to argue against the Kalam. I just thought that that one was the most clever.

41 So if you want to "win" an argument with me, go read all his stuff, don't warn me, and start a conversation about it. :)

42 I wouldn't be *too* surprised if we eventually find some determinism under the layer of randomness that is quantum mechanics, but it's not looking like it at the moment.

much we'd freeze or burn or die of radiation or meteor strikes. The theist feels that this is so improbable that it requires a god to set up. This is answered by the anthropological principle, which, if expressed by the jerk in the back of the class, would go like, "Well, duh: it's not like we could have found ourselves existing at all if we *weren't* in a place that wasn't *just right*."⁴³ There are lots and lots of stars with planets in their habitable zone⁴⁴, so it's not that surprising that we find ourselves on one.

A more sophisticated version of the fine-tuning argument notes that the universal physical constants⁴⁵ seem to have a very small range of values which could support life. That is, if there are enough permutations of the values of the physical constants to make 10^{500} universes, why should the one that exists be this one? Well, if you accept the possibility that there could be a multiverse⁴⁶, then the anthropological principle still applies⁴⁷. If not, and you discount the possibility that life could be constructed out of things other than carbon and liquid water in other possible universes⁴⁸, and you can't find a reason why the current values of

43 We can only become conscious after a lengthy period of evolution in places that *allow* for lengthy periods of evolution. It's not a tautology. More generally, you can only find yourself existing after a sequence of events that permit you to exist.

44 Preliminary results from the Kepler space telescope indicate that in our galaxy, there are probably around at least 500 million planets in the habitable zone of their stars. See:

apnews.excite.com/article/20110219/D9LG45NOo.html

45 For example: G (the gravitational constant), α (the fine structure constant), π , h (the Planck constant), etc..

46 I think it's likely that there's a multiverse.

47 i.e., we can only find ourselves in a universe that allows us to exist. For this to hold, ideally we'd like to find ourselves in an "average" universe, just like we find ourselves in an "average" solar system. I think research is still ongoing to determine how average our universe is; there are several different possible scenarios with multiple universes (each with a different answer to that question) and none are yet proven.

48 In other words, it's not good enough to show that another arrangement of physical constants would produce a universe without water, or even without stars; you also have to show that the building blocks the universe *would* have couldn't be combined to make life. Some

the constants are constrained to what we observe⁴⁹, then this is a puzzle to the naturalist⁵⁰. In order for this argument to be forceful, the theist has to show that all of the above are unlikely. The chances that one of them is true seem better to me than the chances that all of them are false⁵¹, so I don't think this argument helps theists.

The ontological argument: Lol. This is just here to see if you're still awake.⁵²

The problem of evil. The last few arguments have been theistic ones that attempt to prove that god exists. The problem of evil is an objection to a particular formulation of god (which happens to include the sort of god Christianity posits), so it is an attempt to prove that god *doesn't* exist. First, a summary of the problem of evil:

1. God has all power that is logically possible.
2. God is as intelligent as logically possible.
3. God is as good as is logically possible.

arrangements may produce universes that are easy to prove sterile; but for others, it's really hard to do that without an amazing amount of computer power.

49 i.e., find a deeper theory of physics with a smaller number of unconstrained constants from which you can derive the current standard model.

50 Unless some exciting new findings hold up. α , the fine structure constant, can be measured by looking at things in a telescope; and it seems to be larger on one side of the universe than the other. This implies that the physical constants can actually vary throughout the universe. While this would trouble the standard model if confirmed, it allows us to reassert the anthropological principle: we exist in the portion of the universe in which it is possible for us to exist.

51 This argument only holds if the components all have a decent chance of being correct. That is, I can't say "unicorns, dwarves, or pixies could have done it, you'll have a hard time disproving all of them" because the prior probability of such explanations is *extremely low*.

52 If you've never heard of this argument before, go look it up and then think about why drawing a tree on a map does not cause a tree to appear out on the horizon. Poor Anselm. He don't get no respect.

4. But we observe that more evil exists in the world than is logically necessary⁵³.

5. Therefore one of 1–3 is incorrect.

Theists have a passable defense for evil which is caused by other humans (murders, rape, etc): assume that free will is *more important* than minimizing evil. In order for us to *really* have free will, our choices have to have *actual* consequences, and no universe is logically possible in which we both have *real* free will and we are not capable of causing our fellow humans to suffer⁵⁴. But I have yet to see a convincing way for theists to accommodate environmentally caused suffering, such as that caused by last week's earthquake in Japan.

For example, one line of argumentation that is not convincing goes like this: “Well, sure there is suffering, but god uses that bring an even greater good.” The problem with that response is that a) often it is difficult to identify the good, or show that the good is better than the evil it came from; and b) you have to prove that there is no logically possible way to bring about the good, or an

53 If you thought to yourself “but just because god is good, it doesn't mean he'd necessarily make a universe free of evil”, then read on. Compare two universes that are exactly alike, except one contains one fewer violent rapes. If you had the authority to choose which of the two universes would be the real universe, which would you pick? If you pick the one with the extra rape, why shouldn't the victim hold you partially responsible? You could have prevented it, but did not. I can repeat this argument for every crime and natural disaster, so by induction, the only universe consistent with a logically maximally good god is one containing the logically minimal amount of evil. That's actually the theist's defense— to show why the logically minimal amount of evil involves more evil than it seems like it should.

54 This is known as the “free will defense”. Alvin Plantinga's version is fairly well respected. He's probably the best Christian philosopher out there, and I've only read summaries of his work, so he's another guy you should read if you want to beat me in an argument. I think you'll find that the god the theistic philosophers find reasonable isn't much like the one they started out looking for.

equivalent amount of good, without the suffering. That's a pretty tough claim to prove.

The first few arguments I just listed shouldn't really bother any Christian one way or the other: so they fail; there are other reasons to believe, and their failure just means you can't *prove* that there's a god—something most Christians are already painfully aware of. But the problem of evil actually presents some evidence that the Christian god is inconsistent with what we observe in the world around us. I was reluctant to concede this point, but seeing as really smart Christians have been working on this problem for a very long time and their answers are still not terribly convincing, it seemed necessary to award this issue to the non-theists, for the moment at least. I labeled the problem “I don't know/I can't currently accommodate this fact”⁵⁵, but there were plenty of other reasons to continue believing.

Let's stay on the topic of morality—we've been on it since the problem of evil section—but move on to some uniquely Christian features of the debate. When I reconsidered hell⁵⁶, I found that I could not believe in both eternal conscious torment AND a morally good god at the same time. I can imagine punishing Hitler for every last bit of suffering he caused. Heck, double it, triple it, multiply it by ten or a thousand, cube it and then raise it to the power of a million—punish him that much for all I care: but that will take only a finite amount of time and “eternity” is, well, *infinitely* too long⁵⁷. I wasn't going to stop believing in god, so hell had to be reinterpreted. I didn't care at all for the annihilationist

55 It's important to recognize facts that your current belief system cannot explain; they show you where the holes in your knowledge are. If you can explain every single fact, it implies either that you have perfect knowledge (impossible given the limits of the human brain and the current state of science), or that your theory is insufficiently specific (or completely meaningless).

56 This re-visitation (and a few others!) was inspired to a large extent by my past reading of the book “Reason for the Hope Within”, which I highly recommend—it features Christian responses to philosophical objections. It is relatively easy to understand, you might want to read it before attempting Plantinga directly, to see if you like that sort of thing.

view⁵⁸; my view on hell eventually became very similar to the one C.S. Lewis illustrates in his book *The Great Divorce*: those who are there may leave at any time but don't—they are so set in their ways that they would find doing so extremely difficult⁵⁹. Essentially, they continually damn themselves. This view is not explicitly expressed in the bible, but I felt that the various passages on hell were unclear enough to admit it. If the bible really did require the traditional understanding⁶⁰ of hell, I would consider that to be significant evidence against god's goodness.

Current social issues may be another moral issue that challenges Christianity. When I considered some of the passages in which Paul discusses the role of women in the church, suddenly the easiest thing was to say—instead of the heaps and heaps of rationalization and justification that Christians apply to make his words mean something more reasonable, and instead of simply believing them “literally”³³— I found myself labeling them in my head “Paul was probably wrong here”⁶¹.

The same thing goes for the debate about homosexuality. Arguments against it basically boil down to “god said it's wrong”⁶²

57 I won't blame you if you don't have sympathy for Hitler. Instead, imagine someone you care for finds themselves dead and “unsaved”— is infinite punishment appropriate for them?

58 Which is that the unsaved dead simply cease to exist, optionally after some period of punishment. And yes, my distaste for the view is a bit ironic considering my current beliefs—thanks for pointing that out...

59 Although, having now lived through a few Chicago falls and springs, I don't know if I would be as cruel as Lewis is— an eternity of drizzling rain with no substantial roofs seems rather twisted.

60 Which we take perhaps more from the Greeks than the Jews. The old testament doesn't even really have a hell, it's just “the grave” (“sheol”).

61 Keep in mind that the whole “web” concept means I can do that without threatening the entire bible. Perhaps ironically, the two groups of people that won't agree with the above are fundamentalists and atheists. But the bible was written over centuries by many different individuals and is *not* a single entity that stands or falls together. Why should an error in one place affect the entirety of the collection?

62 Stay tuned for the Euthyphro dilemma—next on *Dead Philosophers*, right after these messages!

and/or “Yuck! Ew!”⁶³, while arguments that it is not morally wrong are much more convincing (these are people, too; imagine you are the only straight person on a planet of homosexuals; it doesn't cause any harm, or at least none that heterosexual sex can't cause⁶⁴). The *easiest* thing to do is to decide that Paul was just wrong, but few Christians I know have a belief system that permits them to think such a thing. Other ways of dealing with the problem include reinterpreting his words according to the culture of the day, or asserting that Paul would change his mind if he knew what we know now. I've read some reinterpretations of Paul's writings which do a surprisingly good job of supporting homosexuality without asserting Paul was wrong, but I was never quite convinced. I think the straightforward reading is almost certainly the one Paul intended.

The most common way, in my experience, that Christians deal with the dilemma is by just taking Paul's word for it. I'm going to predict that this causes Christians to be on the losing side of history yet again. Glancing at history, we can see that Christians were on the wrong side of the inquisition, and a century or two later, witch hunts⁶⁵. More recently, Christians have gotten slavery⁶⁶, women's rights⁶⁷, and the civil rights movement all

63 The question of whether it's genetic or not—which seems to take center stage whenever this comes up—completely misses the point; a genetic predisposition to theft wouldn't make it OK, and a genetic indisposition to altruism wouldn't make that less noble.

64 Also, gender is not actually a binary distinction. Genetically male people can quite literally find themselves in a female body if they have complete androgen insensitivity syndrome (CAIS). Should such people date men (they appear female) or women (they are genetically male)? Wikipedia is a good place to for an overview:

en.wikipedia.org/wiki/Complete_androgen_insensitivity_syndrome

65 Obviously today's Christians aren't responsible for these two, but I think it's fair to criticize the religion whose name they were perpetrated in.

66 Did you know that the Southern Baptist denomination split off to defend the right to own slaves?

67 Wesleyans split from the Methodists over the role of women in church and elsewhere.

wrong. I'll further predict that in the not too distant future⁶⁸, virtually all Christians will read the bible with the background assumption that homosexuality is not intrinsically morally wrong, and those Christians will not read the passages on homosexuality the same way today's Christians do—just as today's Christians do not read the passages on slavery like the Christians of the 1860's did⁶⁹.

Incidentally, this tendency for Christianity to follow the rest of the world morally instead of being the first to champion the rights of the underprivileged and repressed is another fact I had to put in the “I can't explain this” category: it is exactly the opposite of what you would expect⁷⁰ given the Christian claim that one needs god in order to have a valid source of morality.

The “old testament god was mean” is an argument that Christians are sick and tired of hearing⁷¹, so I won't spend much time on it. Even making concessions for the age and “the way things were done back then”, it is difficult to reconcile the genocide and other things god seemingly commands⁷² in the old testament with the claim that he is *good*. One could claim that

68 Say, 50–100 years from now.

69 Yes, of course I realize that many Christians *opposed* the practice of slavery even at the time, and many of them led the way to try and get it stopped. But the majority of Christians, as far as I know, did not, did so reluctantly, or did not think it was a big deal (which is still in the “evil” category). Similarly, it's not hard to find Christians today that champion gay rights—but not only are they a small minority of all Christians, other Christians commonly revile them.

70 One can blunt the force of this somewhat by pointing out that, since most people (in this country, anyway) are Christian (~70% of Americans), it follows that most *morally backwards* people are Christian. I don't think that entirely accounts for overall apparent moral incompetence of the religion, but because of it, I didn't (and still don't) consider this to be anything like a fatal blow to Christianity.

71 And no wonder, there are lots of versions of this argument that are easily addressed. It's one of the typical arguments of the lazy atheist.

72 See I Samuel 15 for an example of commanded genocide. One possible defense would be to claim that Samuel was making it up, but I've never seen a Christian make that argument...

such stories are provided as warnings about what happens when people think they have heard commands from god but haven't, but I don't recall ever seeing a Christian take that position⁷³.

To conclude the discussion about morality, I want to deal with the accusation that non-Christians (and/or non-theists) have no objective basis for their sense of morality. I have two defenses.

First, one can argue very convincingly that moral truths are objective facts true of any system comprised of interacting rational agents (e.g., humans)⁷⁴. From this perspective, whether or not a god exists is irrelevant to the question of what is right and wrong. But even if one finds such arguments difficult to understand or disagrees with them, the non-theist has an evolutionary defense⁷⁵. No evolutionist will have a hard time believing that living in small (100-200 people) hunter-gatherer groups for about 200,000 years actually instilled in us a “default” sense of morality which makes life in small groups go smoothly⁷⁶: groups that didn't spend all their time fighting amongst themselves would have had a significant advantage over those that did. The intuition with which we emerged from that time in our past isn't the final word on the

73 Christians have to be careful here, too— just saying “well, that's in the old testament” doesn't automatically win arguments. You have to take it case by case and show that there's something in the new testament that supersedes or rescinds the old testament passage under discussion.

74 See: richardcarrier.blogspot.com/2011/03/moral-ontology.html

75 And it's not the one you've heard from creationists; they claim the lesson of evolution is that might makes right, that it's kill or be killed, that “survival of the fittest” are the attitudes non-theists derive from evolution. But this fundamentally misses the point that “*is* is not *ought*”, or, there is no reason to believe that the process responsible for our *existence* is somehow morally normative for our *behavior*. No moral facts can be inferred from evolution because *there is no mind* behind evolution, and moral facts are facts about how minds ought to relate to each other.

Another way to see why this idea is silly is to turn it around: no creationist believes that the lesson from god's creation of intelligent agents is that *we* should go out and create intelligent agents.

76 This sense unfortunately doesn't seem to scale well, or we would have a lot fewer wars...

subject, of course, because we also happen to be pretty good at rationalizing⁷⁷ pretty much anything we want to do. But if you ask a few dozen people with no ulterior motives if a given action is moral, you'll get a pretty decent starting position, or maybe a couple of positions⁷⁸.

Second, Christians don't have a better moral authority. After something like 2500 years, philosophers still don't have a good answer to the Euthyphro dilemma: that which is good, is it good because god commands it? Or does god command it because it is good? If we pick the first answer, which has god defining morality, what's to keep god from defining it in a way we find incorrect⁷⁹? If we pick the second, well, that implies that there's a source for morality outside of god. Why can't non-theists get their morality from that same source?

I'll end the mini-dissertation on morality with a quote: "The fear of losing a moral compass is *itself* a moral compass."⁸⁰

Hold on to your hat, this next bit might shock some people. I was at a book study a long time ago and someone derisively quoted some author as having called the atonement "cosmic child abuse"⁸¹. In astonishment, I saw some normally rational people go ballistic. It pushed all their buttons. I can see why it is upsetting, and I didn't think it was a fair assessment of the atonement, either—but I can see why someone might say such a thing, and it surprised me greatly that they couldn't. I think that the statement

was so offensive it channeled all their normally productive thoughts into rage⁸²...

Anyway, after hearing that I did a little research. There are apparently various "models" of the atonement that theologians have proposed over the years. The currently in vogue one is called "penal substitutionary atonement" (henceforth PSA) and, if you're like me, you didn't even know there were other options⁸³. PSA holds that there's a certain penalty for sin, and if god pardons a person, that penalty has to "go somewhere"⁸⁴. Jesus dies a horrible death, and—since he's really god—he can pay that penalty for everyone all at once. So if you accept this gift, god goes into his online banking system and transfers Jesus' payment into your account. Once I thought about it, this seemed like a really odd transaction.

It's like god is fighting himself. The just part of him really needs to see sin punished, and the merciful part of him really wants to save people, so they make a deal for a swap. It almost seems like god is going behind his own back to pull the wool over his own eyes. My question is, why does that punishment have to "go" anywhere? If you're a parent and you decide not to ground your kid when they really deserve it because they seem sorry, do you then have to go out and find someone else's kid to ground instead? Well, that would be morally questionable—so instead, you create another body for yourself so you can have two, and then you

77 What a terrible word. It is like calling lying "truthization"—
lesswrong.com/lw/ju/rationalization/

78 Cultural differences will affect this, of course. The evolutionary default sense of morals we get is shaped and informed by our culture. Christians can claim that if this causes people to have "good" morals, it's because our society is largely Christian—but what about non-theists from non-Christian societies?

79 I.e., how is it not arbitrary?

80 Eliezer Yudkowsky: lesswrong.com/lw/ky/fake_morality/

81 The phrase was coined by Steve Chalke and had been quoted by Brian McLaren, who was at the time the person to bash if you wanted to pick on the "emerging church", even though he definitely didn't represent a majority or perhaps even a plurality of the movement.

82 Like politics. See: lesswrong.com/lw/gw/politics_is_the_mindkiller/

83 My preference, after doing said research, was *christus victor*, which holds that through his death and resurrection, Jesus triumphed over Satan, evil, and death, giving him the right to reclaim believers as his own. The wikipedia page on it is a decent introduction to the topic as a whole: en.wikipedia.org/wiki/Christus_Victor

My least favorite of the views was definitely the *moral influence* theory, which holds that Jesus was not much more than a good example for us.

84 As if it were a conserved quantity, like energy or momentum... At least that's what it makes me think of.

ground the body you just made for yourself⁸⁵. So why can't god just absolve people?

Well, you say, it's like a judge that really wants to show leniency, but there's a mandatory sentencing law, and he can't. So instead, this other guy volunteers to serve the sentence in the condemned's place. OK, first, no judge would ever go for that (I've never really gotten how this analogy is supposed to make things clearer). Second, who made the mandatory sentencing law? If it was god, then why can't he change it?⁸⁶

With all that said, I will certainly admit that Paul wrote a lot of stuff that makes it sound like he believed something very much like PSA. And, at the end of the day, it's perfectly acceptable for the Christian to say, "the atonement is a mystery. We don't really understand what happened there." But you'll understand if I don't actually find that to be an argument *for* Christianity.

While we're on the subject of doctrines that don't make a lot of sense to me, I might as well mention the trinity. A lot of Christians seem to try and get around the trinity, or perhaps it's just not understood well. The orthodox view⁸⁷, as far as I can tell, seems to be formulated specifically to require the belief of a logical impossibility. God is three persons and one at the same time in the same way. This never actually bothered me, ever since I figured it out as little kid. I thought it was OK, god can be an exception to logic. I still agree, but once again, it doesn't make Christianity seem *more* likely to be true.

85 And that's why I don't think the cosmic child abuse charge sticks, because Jesus supposedly *is* god. "Son" is mostly just a theological title. The biological human concept of "son" obviously can't apply in the same way to an entity without DNA or corporeal form.

86 Answer: God's the same yesterday, today, and forever. Perfection can't change or it would no longer be perfect. Follow up question: Well, why didn't he see this from the very beginning then and not make the mandatory sentencing law in the first place?

87 Read the Athanasian Creed for the orthodox view. The Nicene Creed, the Apostle's Creed, and the Athanasian Creed are the three creeds that every orthodox Christian on the planet should agree upon.

Prayer: it doesn't work in studies⁸⁸, though it usually does work for me⁸⁹. If it feels like it works, it's because we tend to remember the times it works and forget the times it doesn't⁹⁰. Long before the events recorded in the first paragraphs in this document I noticed this and decided that prayer must be for the good of the person praying⁹¹, because it doesn't seem to be able to do much else. I saw it as something similar to meditation, which has been shown to improve health of the person doing it.

God's will: this concept tortured me for years. It means a few different things. First, anything that happens must have been "god's will" or it wouldn't have happened. Second, it's something you ask for in a prayer so that, should god not deign to answer you, it will seem like you asked for *that*, too⁹². Lastly, it's something you ask god to reveal to you so you'll know what to do. Eventually I figured out that the last one doesn't make any sense given the first one and stopped asking for it⁹³.

Faith: at some point in a conversation like this, a Christian will say, "Well, you can't *prove* X, you just have to have faith." An easy response to that is, "well, Muslims have faith, too. So do Hindus, Wiccans, and lots of other religious adherents. Your faith says they will be damned; theirs says you will. What makes your faith right

88 Not only does it not work, people who *know* they're being prayed for actually do *worse*. See the American Heart Journal's study: www.ahjonline.com/article/S0002-8703%2805%2900649-6/abstract Or read a reporter's take on it: www.timesonline.co.uk/tol/news/world/us_and_americas/article1072638.ece

89 That's a mostly a joke, but it is true. It helps if you always ask for things that are likely to happen anyway (like finding my keys).

90 Confirmation bias. See: lesswrong.com/lw/iw/positive_bias_look_into_the_dark/ But first ask me to give you "that rationality test" if you have any interest in such a thing!

91 I think most Christians would at least partly agree with that, although not for the same reason.

92 In other words, it prevents the prayer from becoming a falsifiable test. I have seen Christians object to the practice on exactly these grounds.

93 "Hey, god—could you tell me exactly what the future will be so I'll know what to do?"

and theirs wrong?”⁹⁴ I don't believe that there is an alternate system of truth in which believing something really hard makes it so. All truth is god's truth. It's called “faith” to *distinguish* it from “certainty”, despite what many Christians seem to think.

“You can't prove god doesn't exist.” Actually, this is not quite accurate. Absence of evidence *is* (weak) evidence of absence. What do you think the chances are that unicorns exist? I'm not saying god is like a unicorn, I'm just pointing out that the facts—that no one has ever had plausible evidence for the existence of a unicorn and that there isn't really a mechanism we can think of that would allow them to exist—provide fairly strong evidence that they actually do not exist. If god wants people to know that he exists, and he's all-powerful, then it should be *incredibly easy* for him to provide enough evidence to satisfy even the most skeptical of people⁹⁵.

“Atheists are just angry at god.” Are you angry with Allah, Thor, Zeus, Siddhartha, Shiva, or Ganesh⁹⁶? Non-theists are exactly as angry with god as they are with Santa Claus— this is a nonsensical accusation. It's incredibly difficult to be angry with a being you believe to be fictional. ⁹⁷

94 If you say your faith is more reasonable or better supported, then I say, “Exactly—it takes more than faith.”

95 Common objection: “But he wants us to have free will, and if he proved his existence, it would make the choice so obvious that no one would refuse.” This statement says that god is not proven/provable, that god knows this, and wants people to choose him (a being they have no reason to suppose exists) anyway. This is equivalent to saying that god will only save people who make irrational decisions, as it's clearly not rational to believe in something for which there is no good evidence...

96 Pandora sure screwed the world up for the rest of us!

97 Related: “Atheists are too attached to their sins to admit to the evidence.” This is breathtaking presumption, not an argument. It begs the question *and* insults the intelligence of the non-theist at the same time. But I can remember a time when I thought that non-believers must be stupid or ignorant to maintain their positions. I trust this document will show that neither is the case.

The tides go in, the tides go out. Never a miscommunication⁹⁸.

Souls: the idea that there is a non-physical component to our minds is extremely hard to justify. Where would it “plug in”? Extensive research has been done on the brain. We don't quite understand how exactly the computations it performs lead to consciousness—but if we damage⁹⁹ particular areas of the brain, we consistently notice particular areas of the individual's psyche are damaged in corresponding ways. This is *really strong* evidence that the brain areas in question are actually doing the work of producing those particular parts of our intellect^{100,101}. And if the brain is doing all the work that leads to our conscious experience, what is left for a soul to do¹⁰²?

Evolution: as promised, a short summary. The big bang/expansion theory¹⁰³ has extensive physical evidence in its favor. The age it comes up with (~13.7 billion years) is very

98 You can't explain that. (Hint: google is your friend)

99 Usually scientists find people already damaged, or temporarily dampen the effects of groups of neurons with transcranial magnetic stimulation (TMS). Occasionally some damage is unavoidable during surgery to remove tumors and that sort of thing. We've known enough to not go messing with brains without a really good reason since the lobotomy fell out of favor in the 1950's.

100 If you look online, you can find a few philosophers “proving” that the “mind is not the brain”. This is trivially true, but not in the way they mean it. It's like saying “the process of running Microsoft Word is not a computer”. The information that makes up *you* is primarily recorded in the connections between your neurons. Electric and chemical pulses propagating through that network of connections actually do the work of “computing” your thoughts, i.e., give rise to your mind.

101 It may even be possible to induce a *religious experience* with the right magnetic field. See en.wikipedia.org/wiki/God_helmet

102 And some people posit souls *and* spirits as two separate invisible components to humans. I've never gotten a clear description of exactly what is supposed to be doing what. I think the primary motivation for believing in a distinction is because it makes for a pleasing symmetry with the Trinity.

103 Technically, the formation of the universe and abiogenesis have nothing to do with evolution at all, but I'm lumping it all together because they're all attacked together.

consistent with the age one gets by measuring things¹⁰⁴. To disbelieve that, one has to ignore large parts of astronomy and physics (radio-isotope decay, specifically). The earth is about 4.5 billion years old¹⁰⁵, and has been cool enough for evolution to start/proceed for around 3 billion years. The astronomical evidence for these items is so overwhelming that I accepted it a long time before I accepted evolution itself.

The final word on abiogenesis (formation of the first self-replicator) has not yet been spoken, but by no means does it seem to have been impossible. With the advent of DNA sequencing, it became possible to objectively assign animals a leaf in a detailed evolutionary tree, and the fact that you can build such a tree and have it match the fossils you find in the ground is really strong evidence that the organisms are all related. Even the AiG people will admit that “micro” evolution happens, as it's all around us; “macro” evolution is the same exact thing. The Creationist slandering of carbon-14 dating is completely unjustified; carbon-14 and other radio-isotope dating methods calibrate each other and are calibrated with tree ring data and lake bed data¹⁰⁶; they are actually *very* accurate. All the different ways of dating things agree with each other *surprisingly* well.

The characterization of evolution as “random” completely misunderstands the process. Which organisms survive best in a given environment is *very non-random*. The distribution of features and occasional mutation is the random thing. One thing to understand is that all the various pieces (eyes, brains, hearts, etcetera) evolved ages ago¹⁰⁷, and today's organisms are mostly just

104 See: www.astro.ucla.edu/~wright/age.html

105 See: en.wikipedia.org/wiki/Age_of_the_Earth

For more detail: www.talkorigins.org/faqs/faq-age-of-earth.html

106 See: ncse.com/cej/3/2/answers-to-creationist-attacks-carbon-14-dating
In fact, they get the science *so wrong* that one begins to question their motivation...

107 Half an eye is a benefit to an animal in a world of no eyes. One reason such structures appear “irreducibly complex” is because we don't see the scaffolding any more—when it was no longer useful, natural selection stopped preserving it. Imagine encountering an arch standing by itself;

rearranging the pieces. Also, the “math” you may have seen “proving” that evolution is so unlikely as to be impossible invariably has very little relation to the way things actually evolve¹⁰⁸. OK, enough about evolution¹⁰⁹.

Do I only believe because I was born into a Christian family? This question first occurred to me when I was 9 or 10. At some

no one piece of it can be removed without the whole thing falling, so how could it possibly have been built? It's the same answer. The way we see things arranged now is not the way they looked while they were in the process of evolving. For an expansion of this point, see:

lesswrong.com/lw/ks/the_wonder_of_evolution/

108 Such math usually assumes that all the given features have to appear at once, which is a ridiculously silly misunderstanding of how evolution works.

109 If you are a creationist and consider yourself a rational person, then consider the following. By Aumann's agreement theorem, two rational agents *cannot* agree to disagree about a matter of *fact* (did evolution occur or not?). Either one or the other (or both) is wrong. I have read and understand probably every creationist argument written up until about the year 2000, and have learned a great deal about evolutionary theory. If you are *better educated* than I am on the subject and disagree, then please get a hold of me and tell me why you think I'm wrong. I am willing to change my mind back if you can present better evidence than what I am currently aware of. If you are not as well educated (in particular, if you have not *tried* to understand evolution *as explained by evolutionists* and not by creationists) then I encourage you to either a) shift your opinion to “I don't know and it's not important” or b) *educate yourself*. Don't choose the latter unless you *really* want to know the answer, and you are *willing* to change your mind (as any inquiry into a matter of fact made by someone unwilling to shift their opinion is inherently pointless—to test whether you are willing to change your mind or not, try listing out how much and what sorts of evidence it would take to convince you). If you have read creationist stuff and not evolutionist stuff, the FAQ at talk.origins might be a good place to start. And don't forget: truth can come in jerk-sized packages! Note, I'm not committing the fallacy of appeal to authority (i.e., my own education) here; I'm just pointing out that if you don't really understand an *entire half of the argument*, there's no reason why your view should correspond to reality *better* than mine does...

point I read an apologetics book¹¹⁰ which made me feel that indeed the evidence was convincing enough that I would switch to Christianity no matter how I started out life. I suppose it goes without saying that I no longer believe this to be the case. Ask yourself, “If I’d been born into a Muslim family, would I switch to Christianity?”¹¹¹ If you’ve never seriously considered deconverting as a Christian, why do you think you would have done so if you were born into some other faith?

Finally, one day a question occurred to me. What feature or features of our universe does god explain¹¹²? If god were to go on vacation, would I notice? What would change? If I split the universe into two clones and left god out of one, how could I tell which one I happened to find myself in? And after some thought, I couldn’t answer any of those questions.

At some point while I was considering the above (I really couldn’t tell you when or in what order I considered those issues except that that last paragraph was the most recent), I came across the website lesswrong.com, which is about “perfecting the art of human rationality”. It had a lot of posts on things that I already knew, but it said them in new ways with a particularly helpful vocabulary¹¹³ (which is why you’ll see a lot of links to this site in the

footnotes). It would be unfair to credit that website with my deconversion—I think that was inevitable—but it did give me better ways to think about things, which (I believe) made my thought process both more accurate and faster.

And now we come to the catch. Webs of belief have a feature that I didn’t really anticipate. Trees crumble under new, difficult to incorporate information where webs can accommodate it and stay stable, as I said. But a web of belief, unless it is completely broken, cannot accommodate arbitrary information and *never* change the corresponding dependent beliefs. Instead of crumbling into shambles, webs of belief “snap” between stable configurations. So, one stable configuration was that I thought Christianity was likely to be true, given the various beliefs I had which gave positive and negative support: it was less painful¹¹⁴ to label all the negative evidence “unexplained” than to update my opinion of the dependent belief. Then one day, the last piece of information—whatever that may have been—slipped into place, and suddenly it seemed that it was easier to label the positive evidence “unexplained”, accepting that the negative evidence was significantly stronger.

There’s a “hysteresis” effect with beliefs. We don’t change our mind when we’re 51% sure about something and then back when we are 49% sure. We don’t like to change our mind¹¹⁵. What that meant for me is by the time I noticed that my mind might be changing, in reality I already probably thought the evidence was

110 I believe it was the *Case for Faith* by Lee Strobel.

111 Given the culture we live in, this can even apply to people converted later in life. If you are in the U.S. and seeking a god to believe in, which god are you most likely to meet? Consider that 7 out of 10 people in the country are some variety of Christian, and that even the things such a seeker might unconsciously “know” about god are overwhelmingly likely to be formulated in Christian ways. Seekers that pray things like, “God, if you’re real, show yourself,” and then perceive some event as having answered that request—do they then attempt to discover *which* god was responsible for the answer?

112 Don’t answer this with things like tides, moons, evolution, etcetera. That is the “god of the gaps” theory (i.e. everything you don’t understand is labeled “god”), and you’ll have to change your mind every time science makes yet another discovery.

113 Of course, there were also plenty of posts which contained new information. Most of the vocabulary I refer to, and perhaps the entire concept of “the art of human rationality”, is the work of lesswrong.com’s

creator and most prolific contributor, Eliezer Yudkowsky. The site is strictly about rationality and is completely uninterested in the debate between theists and non-theists (they consider it already a settled matter). I refer to various arguments at that site a lot in this paper; I’ve tried to note them where I did it consciously.

114 If I were a good rationalist, I would have changed my mind much, much sooner—the time at which I could have predicted that I might change my mind would have been a better time. It’s safe to say that my desire to retain my faith delayed the acceptance of the implications of all my beliefs by a year or two.

115 Which is good; rapidly changing your mind all over the place will guarantee that you’re wrong some of the time...

80% against Christianity being true¹¹⁶. And one day I woke up and couldn't honestly say I believed. I did not choose to not believe. I was not trying to disprove Christianity. I was not *happy* about it, as I knew it would make my life difficult. I guess you could say that my desire to make my beliefs match reality to the best of my ability finally overcame my desire to maintain the status quo.

Problems. Not everything meshes completely with my new state of mind. There are still things I don't have good answers for, but these things are far fewer than the things I couldn't answer as a Christian. I will list a few of them now. If you were worried that you agreed with me on too many of the last set of points I went through—well, maybe we can still save your faith¹¹⁷.

Miraculous occurrences. We need to divide this into two categories, because different people mean different things by “miracle”. Perhaps the most common usage is as “statistically improbable event”: the parking space in front of you frees up unexpectedly in a busy lot, your aunt's cancer goes into remission even though it wasn't expected to¹¹⁸, you get a promotion at work, you run into the same random person in two different places on two different days. These sorts of things don't require a supernatural explanation once you: know that humans have a tendency to severely underestimate the odds of rare things happening¹¹⁹; consider how many different rare things there are that possibly *could* happen; and note how *many people* there are for these things to happen to. And, given the nature of

probabilities, the *most* unlikely thing would be if nothing unlikely *ever* happened at all!

The second category of miracles would be things that seem impossible given our current knowledge. The miracles in the bible tend to be of this type: holding the sun still, healing leprosy, coming back from the dead, being bitten by a poisonous snake and living, having hearing or sight restored. Some of those we can now effect with modern tools, but all were impossible and inexplicable at the time. Some of them we can hypothesize natural explanations that the people at the time may not have thought of¹²⁰. Some of them might be explained by correcting a mistranslation¹²¹. But I think both of those items miss the point, which is: miraculous occurrences that seem so improbable as to be *impossible* require ridiculous amounts of evidence before we should even believe that they actually occurred. Christians don't believe the miracles recorded in other ancient texts occurred; why should those of other faiths (or of no faith) believe the ones in the bible? Ancient texts in general have had many, many opportunities to be embellished, and most if not all of the original authors lacked the sort of modern skepticism that any modern reporter would display.

More difficult to dismiss are stories from individuals¹²².

116 If I were a good rationalist, 60% should have been enough to cause an urgent examination of the issue. Instead, it caused me to *try and ignore* it, which is the bread and butter of irrationality. 80% was *way too late*.
117 If you've agreed with very much of what I've said, there's a good chance that you might be well on your way to non-theism...
118 That's not magic when it happens. The body has cancer fighting abilities, they just don't function nearly as well as the rest of our immune system...
119 For example, see the current state of the economy. More seriously, humans really are bad at this. Look up the “birthday paradox” to see if your intuition on the subject is as broken as most people's. It's so counter-intuitive that some people can't believe it without trying it...

120 For example, maybe the snake dry-bit Paul. The more extreme attempts to do this just make one look silly, though— for example recall the news item from not too long ago about how maybe Jesus was able to walk on water because a small patch of ice had formed. It's as if the authors didn't notice that the ability to summon a small patch of ice and balance on it without anyone noticing is as impressive—if not more—as just walking on water...
121 For example, if I recall correctly it's entirely possible that Joshua wasn't trying to tell us that the sun stood still, but that it was covered by clouds. And the “Red sea” that Moses split might actually be referring to the much shallower “reed sea”, although I'm not at all sure how that is supposed to make the crossing less miraculous.
122 I've heard a couple that are difficult to explain without accusing my first-hand source of lying or misinterpreting something it seems unlikely to have misinterpreted. I prefer to leave them as “unexplained” in my head because the people I heard them from seem to be being honest. Don't

Unfortunately, these things never seem to happen to *me*, and they always seem to happen in unverifiable places (other countries, an unspecified church, etcetera). Most difficult to explain are widely attested odd phenomena, such as the occurrences at Fatima¹²³. But both of these classes of things only establish that *something* we don't understand is going on. They don't validate or prove the entire Christian story. For any given miraculous occurrence, I can come up with plenty of non-Christian supernatural explanations. How can I determine which is the correct one¹²⁴? Still, I'll regard these as evidence that we don't yet fully understand the nature of reality¹²⁵.

Let's move on to what I'll call the "battle for the imagination". Christians have *Narnia* and *Harry Potter*¹²⁶ (not to mention C.S. Lewis's more adult works, his *Space Trilogy*, and, I'd say, the *Great Divorce*). The atheists have *His Dark Materials*. I think it's safe to say that almost everyone would prefer to live in Lewis' or Rowling's worlds¹²⁷. Science fiction could win here, but science has

forget—we're talking about things that absolutely must be supernatural here. For merely statistically unlikely events, I can disbelieve a supernatural explanation is required without needing to think ill of the person reporting the experience.

123 Which is the only example I can think of in the category. Perhaps if I did more reading on it I would find a satisfactory explanation, I don't know. I was never Catholic, so that never really seemed like evidence for my faith anyway.

124 How did the person telling me about the occurrence come to his or her conclusion about it? How do they *know* that? Is it just what their intuition says? Why should I expect human intuition to accurately predict the nature of a hypothetical supernatural reality? If they say, "Because it comports with my reading of the bible," then I can ask all these same questions about the people who recorded the experiences in it...

125 Which should not be a controversial proposition for anyone...

126 After reading the series—even before the last book came out—I was flabbergasted at the amount of flack Rowling took from Christians. She's. On. Your. Side. Harry Potter is a *better Narnia than Narnia is*. Argghhh! This drove me up the wall!

127 The world of *His Dark Materials* seems specifically designed to cause the protagonists to... OK, I won't spoil it. But it's not an ending I would

a long ways to go before attaining the one thing really necessary for that¹²⁸—and it is debatable that it will manage it while we are still living. Unfortunately, my preference (or lack thereof) for living in a Christian universe has no bearing on whether, in fact, I do live in one¹²⁹.

Death. I do not want to die, and I do not want to believe that consciousness ends at death. Unfortunately, the universe cares not one whit about my feelings on the matter. What is true, is true, whether I like it or not.

The bible. I consider the fact that people near the source of the new testament wrote it down and believed it to be weak evidence for Christianity. Mind, I think it is probably more likely that some deception, dishonesty, or plain old inaccurate reporting were involved at the very start and at several points in the transmission of the texts, but I'm not super confident about it.

If you've read this far, you know what it would take for me to change my mind back— you would have to show that most of these arguments (and probably more which I haven't thought to mention here) should be resolved as (more) favorable to Christianity. Of course I'm open to such a thing—but I sincerely doubt that it's possible. I didn't change my mind when I was 51% sure—as I said—and since changing my mind at perhaps 80% certainty, so much more has fallen into place that I'm currently more like 99% sure that my current position best explains the evidence.

Now I should answer a question I posed in one of the footnotes: what evidence would cause me to change my mind? Unfortunately, I think it's *extremely* unlikely that I'm *unaware* of enough

have chosen.

128 Obviously, that would be a way to cheat death. A "singularity" probably can't occur sooner than 2040 or so (and unless we *do it right* the *first time*, it may not be a positive one). Cryogenic freezing is probably currently the best bet, but no one really knows if it preserves enough information to restore your brain's state. But, as someone cleverly pointed out somewhere—the control group is *definitely* not doing well.

129 Disagreeing with this commits the fallacy of arguing from consequences.

evidence to switch my mind back without having to change my mind on many of the above issues¹³⁰. I've done the tests I can think of, I've read the relevant materials, I know several levels of both sides of the arguments. I have such a large mountain of evidence in front of me that even if I only know a small part of the story, the remaining parts would have to be *amazingly* one-sided to change the balance in favor of belief in god¹³⁰. No, the way to convince me I'm wrong is to show that I'm wrong on most of the issues I've discussed above. There is one other thing that I think could convince me. Any being sufficiently powerful that it was capable of convincing me it was Jesus over a cup of coffee should easily be able to persuade me to change my mind¹³¹. This feels like a cop out—any being that powerful could probably convince any human of anything it pleased—but I don't really see a way to tell the difference between a sufficiently powerful being that claimed it was Jesus and the real article. It would have to be a very convincing encounter; merely experiencing a few things which I could not explain falls far short of the level of evidence it would take to counteract all the facts I'm currently aware of.

The final part of the story is that I did not want to tell people that

130 Some math. I have 50 units of evidence, and 49.5 of them say "atheism is correct", so I am 99% sure that atheism is correct. If I have a bucket with 50 additional pieces of evidence, how many of them would have to say "theism is correct" in order for me to be 99% sure that theism is correct after putting everything together? If all 50 say "theism" I should be 50.5% sure that theism is correct, so the answer is that it's not possible. To become 99% sure about theism, I actually need to see about 950 new pieces of evidence that say "theism" (assuming none of the new evidence says "atheism"). In other words, to support such a drastic change of opinion, (assuming that I've correctly interpreted the evidence I have) it is necessary that I know only 1% of the total amount of evidence available, and that the rest of the evidence is nearly 100% against me (if that seems harsh, you can alternately imagine that I only know .001% of the evidence— then the remaining evidence only needs to be 99.001% against me). It is hard to see how this scenario is feasible.

131 I hope this doesn't come off as arrogant. But acting less confident than you are is as great a sin of rationality as is being more confident than you should be.

I no longer believed in god. Why? I didn't want to hurt them. I feared the possibility that they would stop wanting to associate with me. I didn't want them to think they somehow failed me. I don't know when I really stopped believing, but this line of thinking kept me from saying anything for months, possibly as much as a year. I was definitely not eager to claim the term "atheist"¹³²—I think it carries a lot of baggage in Christian circles that I feel no need or desire to defend or correct. But, unfortunately, simply saying "I don't believe in god" doesn't seem to quite register in people's minds with the correct amount of impact.

I want people to know that I am still the same person. I still value the same things and people I valued before. I am not out to destroy the fabric of American culture. It really doesn't bother me one bit if you say "Merry Christmas" around the holidays. I'm still interested in theology (you don't have to believe something to find it worth discussing). I still know the bible fairly extensively. I still pray for help finding my keys¹³³. My opinions on school prayer and public postings of the ten commandments haven't changed¹³⁴. My views on what is moral have not changed¹³⁵. The *only* thing that's changed about me is that I now think the evidence adds up to 4 instead of 5.

Thank you for your time¹³⁶.

132 "Agnostic atheist" would be the technically correct description of my current position

133 Though I now try to switch up the deity I invoke. Zeus has a 100% success rate at the moment.

134 Blown out of proportion and missing the bit about the separation of church and state, respectively.

135 This is because I always had reasons for my views; no moral belief I had ended at "because god said so" if you kept asking why. The reasons are still valid, so there's no change.

136 Please let me know if you noticed any factual errors, if you feel I left something out, or if there's some piece of evidence you think I should address. If you have questions, *ask*.