ESSAYS

in

PHILOSOPHY

and

THEOLOGY

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Preface

This is a collection of essays about various topics in analytic philosophy, analytic theology, and related fields such as religion, science, and the Bible. I started writing these essays in 2020. Since August 2022, I have spent over 372 hours revising them—editing essays, rewriting essays from scratch, deleting essays, and adding new ones.

I am *not* an expert in any of these topics. (I did get an A in master's-level metaphysics, however.) Thus, the quality will not be as good as if you were to read an expert. So take everything I say with a grain of salt.

These essays are *not* supposed to be introductions to or overviews of their topics. Many of these essays focus on only a small portion of the positions and arguments related to their topic. So, after reading an essay, don't think that *you* are an expert on the topic or that you are now aware of all the main positions or arguments.

If you want to learn philosophy, the best way is to enroll in philosophy courses at a university. Second best would be reading an introductory textbook to philosophy in general, such as Michael Huemer's *Knowledge, Reality, and Value*, and then reading an introductory textbook to a more specific discipline of your interest (such as logic, metaphysics, epistemology, ethics, philosophy of mind, philosophy of religion, and so on). The *Stanford Encyclopedia of Philosophy* and the *Internet Encyclopedia of Philosophy* are helpful for reference if you want expert sources, but they can be difficult to read.

For fun and high-quality philosophy videos, check out *Majesty of Reason* (Joseph Schmid) and *Kane B* (Kane Baker). For good theology videos and podcasts, check out *The Analytic Christian* (Jordan Hampton) and *Defenders III* (William Lane Craig).

I aim for clarity, precision, directness, respect, honesty, ease of reading, organization, and conciseness. Each essay engages immediately and head-on with its topic, with no fluff or filler. I admit when I am unsure about something (which is basically always). I avoid unproductive behavior such as name-calling, sarcasm, slogans, cheap shots, snarkiness, making fun of others, overblowing conclusions, mock bewilderment, and refusing to answer questions.

If you think (or know) that I have gone wrong somewhere, or you want to contact me for any other reason, please email me at sitecubing@gmail.com. I love talking about these topics. I don't have any agenda other than clear thinking, truth-seeking, and servant-minded discussion.

Version 143 · September 13, 2025

Seeking the Truth

How do we find the truth? It is not as if we can simply ask any question and the answer is suddenly revealed to us. Rather, it looks like we have work to do: the work of *seeking* the truth.

Most people think we have the truth in obvious matters. Most people are fairly confident that they exist, that they are able to think, and that they are interacting with an external world with other people in it. But what about the big questions? Where did the universe come from? What is consciousness? What are space and time? Are there boundaries between physical objects? How accurate is science? What happens when we die? Is evolution true? Is there more to reality than the physical? Is there a God? If so, what is God like, and how does God interact with us?

It seems that the most reliable way to proceed is to look at all the different views and figure out which one is the best overall. And by 'best', I mean 'the most likely', which is shorthand for saying that *the reasons for believing that view are better overall than the reasons for believing in all competing views*. And the best view is the one we should adopt. This methodology doesn't guarantee that we end up with a *problem-free* view, or a view that we are *certain* about. And it obviously doesn't guarantee that we end up with a *correct* view—i.e., the truth. But this methodology does seem to be our best shot at doing so. In addition, it provides a way of acquiring *rational reasons* for our beliefs. We can say *why* we believe what we believe, and *why* we doubt what we doubt.

1. The Problem of Skepticism

The first hurdle to answering big questions is this: How do we know *anything*? How do we know that we exist and that the sense of a unified self isn't just an illusion? How do we know that we are interacting with an external world and not merely a projection of our minds? How do we know that our distant memories are accurate and have not been distorted or accidentally fabricated (both of which happen all the time)? How do we know that any positive statements about the past are true? If we posit that the past exists, how do we know that? How do we know that scientists are actually discovering things about the external world, instead of merely interpreting images on computer screens and microscopes? Take any belief that you hold. How do you know that it is true? You might say one of four things:

1. "The evidence strongly suggests that my belief is true". But this doesn't imply that your belief is true. We can come up with plenty of scenarios where the correct view is not the one with the most evidence supporting it.
2. "I directly observe that my belief is true. I see a tomato in front of me, and so I know that there is a tomato in front of me". But what you're really seeing is an *image* of a tomato generated by your brain. That image could be part of an illusion, a hallucination, or a dream. The tomato could be fake. It could be a realistic painting. It could be some other object or combination of objects that for some reason look like a tomato.

3. "It overwhelmingly *seems* that my belief is true". The fact that something seems true doesn't imply that it *is* true. In the Monty Hall problem, the wrong answer seemed correct to thousands of people, many of whom remained unconvinced even when shown proofs.[1]
4. "The truth has been divinely revealed to me". Maybe not. Maybe it *seems* to you that you have received a divine revelation, but you are mistaken. Otherworldly-seeming experiences can be induced through a variety of means, including intense meditation, fasting, or usage of hallucinogens. You could be misinterpreting your experience. In addition, you might be so strongly influenced by your culture and upbringing that you *naturally* interpret strange or otherworldly-seeming experiences as divine revelations.

Maybe you might have other responses, but in every case, as far as I can tell, there simply won't be an ironclad link between the reason you give and the truth of your belief. There is always a significant possibility of error. Maybe a *small* possibility of error wouldn't be anything to worry about, but it seems to me that a *significant* possibility of error prevents your belief from being justified and thereby from being knowledge. And in any case, it sure seems that a significant possibility of error would make it impossible to be *confident* in any of your beliefs.

Notice that I am *not* arguing that any of your beliefs are *false*. That would *itself* be a belief that would be called into question, just like all the others. What I'm wondering is *how* we can justifiably hold any beliefs. If we can't justifiably hold any beliefs, or if we have no clue as to whether we can justifiably hold any beliefs, shouldn't we just be *undecided* about everything?

This is a version of the *problem of skepticism*, a central question in epistemology. I cannot attempt to address it here, simply because I do not know very much about it. What I will do for most of this document is go along with the commonsense intuitions that most people have—that things exist, that thoughts are happening, and that there is an external, mind-independent world. If we can't even assume these things, there seems to be no chance that we'll ever reach the truth. Assuming these things gives us at least *some* chance of reaching the truth, however small.

2. The Problem of Intuitions

The second hurdle is this: We all have a set of intuitions about any view we encounter. If you show me any view, I will respond to each with my position on it: I might think it's obviously true, or probably true, or probably false, or obviously false—or I might just be undecided. But it seems that this set of intuitions just predetermines how we will think about any view. And since people have radically different intuitions about almost everything—and some people, including myself, have *competing* intuitions—many people's intuitions are therefore unreliable. So how are we supposed to seek the truth if our beliefs might just be predetermined by unreliable intuitions?

Once again, I do not know how to solve this problem. It seems the best we can do is to try our best to be honest and open-minded, and hope that if we have unreliable intuitions, they will be replaced with more reliable ones. I am somewhat hopeful about this—it seems plausible that years of practicing open-minded and careful thinking, combined with engaging with lots of

opposing views, can produce a mind that is more likely to come to true beliefs. Of course, by the same token, years of practicing close-minded or careless thinking, combined with avoiding opposing views, can make it difficult or impossible to come to true beliefs.

3. Open-Mindedness

The mindset one should have when seeking the truth is *open-mindedness*, which involves four things. First, *not making premature assumptions or prejudicially ruling out certain views*. If we assume that Christianity is false, we would be missing out if it is actually true, and we'd never even give ourselves the chance to find out that it's true. By the same token, if we assume that Christianity is true, we might be able to construct a vast, profound, and historically informed architecture of theology, and be amazed at how it all "hangs together", but we would be deceiving ourselves if it turns out to be false.

Second, *the willingness to discover, consider, and engage with new beliefs, concepts, and approaches* that you weren't previously aware of or hadn't engaged with.

Third, *the willingness to change one's mind if it looks like one's own theory isn't the best overall.* If it starts to appear that some competing theory is better overall, then the intellectually honest thing to do is to adopt that competing theory, or at least admit that it is better overall. Likewise, if it becomes unclear which theory is the best, then it seems that the intellectually honest thing to do is to be undecided among the relevant theories, or at least to admit that it is unclear which theory is the best. Once again, if we are unwilling to change our mind, we could be missing out on the truth. Even if we have recently or publicly argued for a position, we should be willing to give it up if it looks like another theory is better. We shouldn't *cling* to the theory that we want to be true. The same goes for *methodology*—we should be open to new *methods* of examining theories. In general, whenever we encounter something we disagree with, our response should *not* be, "Oh no! How am I going to defend my current beliefs?", but rather, "Let me look at this honestly and see whether it's true."

Fourth, *fairness toward opposing views*. This means treating opposing views with the same charity that you naturally grant to your own view, and challenging your own view with the skepticism that you naturally bring against other views. It is unfair and inconsistent to tell people that they should believe your view because your view is *plausible*, but then demand that they must provide *proof* of their view in order to be justified in believing them. In general, asking for *proof* is overly demanding, unless we are dealing with strictly logical or mathematical matters. Instead, we should ask for good *reasons* to believe something.

One might object by quoting G. K. Chesterton: "Do not be so open-minded that your brains fall out". This quote seems to misunderstand what open-mindedness involves. As explained above, open-mindedness involves (1) not assuming too much or prejudicially ruling out views, (2) being willing to engage with opposing views, (3) being willing to change one's mind when the evidence compels one to do so, and (4) being fair toward opposing views. None of these

practices puts one at risk of having their "brains fall out". Chesterton's warning should be directed against being overly *noncommittal*—stubbornly holding on to agnosticism even when there is clearly a correct view.

One might object that if you *already have a true belief*, it would be detrimental to be open-minded, since that introduces the risk of losing that belief and so straying *farther* from the truth. This seems correct, but only to the extent that one thinks one's truth-seeking method is unreliable. If my truth-seeking method is reliable, then following it will, on balance, lead me to more truth over time, and so I shouldn't worry that being open-minded will result in straying farther from the truth. On the other hand, if my truth-seeking method is *unreliable*, then the premise of the objection—namely, that I already have a true belief—is very unlikely, and so the objection fails to establish the conclusion that being open-minded presents a considerable risk of straying farther from the truth.

4. Religious Convictions

Many people have strong religious convictions. Whenever they encounter an argument that contradicts one of those convictions, they immediately reject it. There is often a *relational* or at least *moral* aspect to this rejection: why would they grieve the God who has saved them and transformed their life? I respect this viewpoint. I simply wish to offer four questions for them to consider as they seek the truth:

1. Does the fact that God changed my life imply that every single belief of my religion and religious denomination is true? If so, why?[2]
2. Would I be willing to admit that *any* of my beliefs, or interpretations of religious texts, are incorrect? Or do I think that no argument or amount of evidence could ever change my mind about any of my beliefs?
3. If I see an argument that goes against my convictions, do I just "react" to it, or do I carefully look at it and pinpoint where it goes wrong?
4. Why do I believe what I believe? Is it because of evidence? Personal experience? Is it because I want it to be true? Is it because I think that alternative viewpoints are "unlivable"? Is it because I think my religion is the most attractive or hopeful way of viewing life? Am I engaging in any circular reasoning that could apply equally well to other views?

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[1] Wikipedia, "The Monty Hall problem".

[2] For example, it appears that KJV Onlyists are strengthened and inspired by reading the KJV 1611 translation of the Protestant canon of the Bible, and it appears that they take that experience to be evidence that the KJV 1611 translation is the literal word of God. See e.g. "The King James Bible Revealed By Pastor Mitchell Johns", *KJB Believers* (YouTube, 2022).

Good Discussion

A good discussion is one that features (1) *progress*—there is advancement of thought as participants learn new information, concepts, perspectives, and approaches; (2) *truth-seeking*—participants honestly try to figure out the truth or the best view, instead of just trying to defend or attack certain views; and (3) *cooperation*—participants respect and listen to each other instead of just trying to convince each other, and participants actually *engage* with each other's views and arguments instead of dissing them or spewing canned responses. Below are some recommendations for achieving a good discussion.

1. Cooperation

Everyone should be working together as a team to find the truth, instead of trying to change other people's minds. The enemy is not the other person; the enemy is ignorance and confusion. Don't try to score points or trap others. Try to promote learning and discovery. Be open-minded, willing to consider every idea as neutrally as possible, resisting the urge to strawman or dismiss. Be willing to admit when others are making valid points, or when you realize difficulties with your own view. Consider pretending that you *want* someone else's view to be correct; this will motivate you to come up with the best arguments for it. You don't have to be ready to abandon your views on the spot—belief revision is best done carefully and in solitude. Don't criticize people for changing their view during a discussion if they do it openly and honestly.

Be willing to listen to and learn from others. Encourage and compliment others, highlighting when others raise good questions or thoughts, and thanking them for their time and engagement. Avoid the temptation to argue or be contrary for its own sake. Pause before each response and ask yourself whether you really disagree with what someone has said. It is easy to get caught up in "disagreement mode" and be intent on pointing out every possible way that they are wrong, so that you end up missing the times when they are making good points. If someone says something that sounds completely wrong-headed or confused to you, resist the urge to immediately diss it—instead, ask them to clarify or explain further. Also, sometimes you will make a mistake or say something that you aren't sure about. If this happens, don't defend what you said just because you said it. Instead, honestly assess it and see if it's true or false.

Practice conversational etiquette. Don't assault someone with a barrage of questions. Don't talk so quickly that no one can understand you. Don't talk for so long that everyone forgets what you said. That is an unpleasant waste of time. Avoid all types of sarcasm, disrespect, and patronizing. Avoid publicly questioning people's motives. Don't interrupt people, even if you think they're dead wrong (unless they have been talking continuously for several minutes). It is especially rude to interrupt someone when they are pausing to think hard about something. Don't talk at the same time as someone else. That creates chaos that is disorienting and unproductive.

Don't jump in as soon as there is a split-second of silence. When the subject matter is difficult, it is normal for people to frequently pause to think and figure out what to say. Wait until they have

said all they wanted, and then pause for a few seconds before speaking. And don't be afraid to ask for a few seconds to gather your thoughts—this will enable you to come up with a more thoughtful, productive response. Similarly, if there is a moment of silence or agreement, don't feel like you have to butt in to keep the conversation going. Do not be condescending, make disrespectful faces or shake your head when others are talking, or say how utterly shocked or disappointed you are that someone else disagrees with you. Such rhetorical tactics prompt others to throw up walls of defense which block the conversation from flowing. Rhetorical tactics are signs of weakness, meant to cover up a lack of solid reasoning.

Don't be irritating. Don't be constantly jumping in to jab at other participants. Don't act like everything you say is absolute, undeniable truth. Don't make sweeping generalizations about entire fields of study that you know almost nothing about. Don't dodge questions or change the subject or bring up irrelevant points whenever you are challenged. It is especially irritating when a participant never grants *anything* that anyone else says, but is instead constantly nitpicking everything that everyone else says.

Practice good dialectical etiquette. Suppose Alex and Ben disagree about topic T. Suppose Alex presents Ben with a logical proof that Ben's views about T are contradictory. In such a situation, it would be appropriate for Ben to revise Ben's beliefs in order to remove the contradiction, or to say that Ben is honestly unsure about what to do, or to question Alex's proof or its terms, or to provide a counterproof that *Alex's views* about T are *also* contradictory, or even to say that Ben is no longer interested in discussing T. It would *not* be appropriate for Ben ignore the proof and simply insist that Ben's views are not contradictory, or to launch objections against Alex's views about T—objections that can only work if Alex's proof fails. This would be poor etiquette, because Ben is failing to engage with Alex's argument. That is like trying to castle out of check in a game of chess: an illegal, unproductive move contrary to the spirit and purpose of the game.

If a participant defines an arbitrary variable, other participants should not just completely ignore or abuse it. For example, if Alex defines 'L' as the proposition ⟨If P were in C, P would do A⟩, then in that same conversation, Ben should not begin declaring that L is the action that P would do in C. Alex has already defined 'L' as a proposition, not an action.

2. Content

Participants should be focused and get to the substance of the discussion. Participants should try to stay on topic and resist going down unnecessary rabbit holes. Peripheral issues can be mentioned if necessary, but should not be excessively debated in place of more central issues. A syllogism supporting a particular view is a good starting point that enables participants to see exactly where they disagree (if they disagree at all).

Participants should be committed to providing reasons that they accept, reject, or are undecided about a given position that they have considered. Participants should resist simply *asserting* things that they know their interlocutors already disagree with. Participants should be willing to

focus on *concrete*, *specific* arguments, evidence, and theories. Simplistic dismissals, red herrings, appeals to popularity, labeling (e.g., "Oh, that's just rampant skepticism" or "Oh, that's just tired old revisionism"), spouting slogans, and accusations of intellectual dishonesty are to be avoided. If someone asks you a question, don't answer a different question. Answer the question that they asked, as directly and clearly as you can. If you don't know the answer, then say, "I don't know". It is also unfair to respond to everyone something says with, "Oh, you really just need to read this document". Why are you even discussing with them if you aren't willing to contribute anything? The least you could do is provide them a relevant quote from the document so they have something to engage with.

Arguments should be addressed in a clear, straightforward manner. If the arguments are valid, then carefully evaluate their premises. Rhetoric about "underlying assumptions" or "motives lurking in the background" is a waste of time; if such rhetoric can be converted into a defeater for one of the premises, then do so. Otherwise, they are irrelevant and should be ignored. Participants should be willing to follow logical reasoning. It is dishonest to abandon logical reasoning every time you see that it leads to a view you don't want to believe. Similarly, do not respond to an argument by saying, "Oh, I'm not bothered by that", or "Oh, Aquinas wasn't bothered by that", or "Oh, well that's just your opinion", or "Oh, I showed your argument to my friend and he *destroyed* it". Those are incredibly lazy responses. Engage with the argument. If you agree with it, say so. If you disagree, specify where you disagree and why.

Playing the *skeptic*—attempting to cast doubt on others' positions without defending any position yourself—will likely not persuade anyone else to change their mind. Even if you convince someone that their position is problematic, they might think that every alternative to their position is *even worse* (unless you can demonstrate a contradiction in their position). *Iterative skepticism*, the practice of constantly asking, "How do you know that?", does nothing to support or refute a particular position (since questions are not arguments),[1] but it could help participants see the logical structure of their belief systems. If both participants engage in iterative skepticism, it might help them get to the most foundational premises on which they agree and disagree. However, I prefer the question "Why do you believe that?", since sometimes people believe things that they're not super confident about and so don't claim to *know*.

After I take part in a discussion, I go and write all the important points I can remember into my notes, and eventually incorporate those notes into these essays.[2]

3. Clarity

Participants should be as clear and transparent as possible, bringing all hidden beliefs into the light. All definitions, positions, and arguments should be stated precisely and *understood by all participants* as soon as possible, so that one does not have to repeatedly clarify one's position later on. ("No, what I *really* mean is this …") Special care should be taken when discussing topics that involve related but distinct notions (e.g., universalism vs. pluralism vs. inclusivism).

In addition, participants should try as hard as possible to understand each other's positions, perspectives, and intuitions. Instead of dissing other positions for being unclear, one should ask clarifying questions. Ask people what they believe instead of putting words in their mouth. As much as you can, try to get your opponent to describe their own view instead of doing it for them. When you are describing a view that you disagree with, it is extremely easy to word it in a way that makes it seem less compelling. If someone says something that seems a little *sus* to you, ask them about it instead of immediately attacking it. So much time is wasted by attacks that are based on misunderstanding.

Similarly, if participants suspect that they are using the same in different ways, they should stop *immediately* and nail down all definitions. Failure to be precise about definitions can waste an enormous amount of time in a discussion. If people can't agree about definitions, then either (i) avoid using the disputed terms and just express the ideas in more basic, agreed-upon language, (ii) compromise and use the other participant's terms (unless they run afoul of standard usage), or (iii) define and use *star* terms (knowledge*, causation*, etc.).

In addition, participants should decide exactly what they are trying to accomplish for the discussion. Are they analyzing a single premise? An entire argument? An entire worldview? Are they comparing two worldviews? Are they critiquing or defending? Are they trying to answer the same question? Or two different questions? Are they trying to convince each other? Are they trying to learn from each other? Are they trying to find where the fundamental disagreement is? To the extent that participants do not share the same goals, productivity will be stunted.

Similarly, if one constructs an argument with premises and a conclusion, that conclusion should be exactly what one is attempting to argue. Failing to construct arguments this way might result in a waste of time, since someone can agree with the argument but still reject your position.

If you ever change your mind or concede a point during a discussion, mention it at least briefly. You don't want to get into the habit of steamrolling past others' corrections and pretending that you haven't budged or that the other participant hasn't influenced your thinking at all.

4. Conciseness

Participants should state arguments, defend positions, and ask questions in as few words as possible. See if you can communicate each point or question in 1-3 sentences. Don't ask multi-part questions. *Ask a single question or make a single comment*. One should avoid rattling off a long list of arguments, claims, or questions. Doing so is a waste of time, because there is simply not enough time to adequately address all of them. Similarly, one should not use a *shotgun* approach where you dissect the other participant's response into many small bits and attack them one by one. Such approaches produce long-winded comments, redundancies, and an inflated discussion that is about too many topics at once, while making little progress in any single topic.

Don't jump the gun on your questions—for example, "Do you think that P? If so, then here is a problem. But if not, then here is another problem". Similarly, don't ask a question and then start rambling about how problematic you think their view is. *Ask the question, close your mouth, and wait for a response.* The response might be more nuanced than anything you expected. If someone asks *you* a question, pause for a moment and think carefully about their question, and then slowly and carefully answer in 1-3 sentences. I've found it to be most productive to focus on a single topic and proceed one question or comment at a time.

In the same vein, participants should resist the urge to be overly repetitive, to pontificate, or to be constantly inserting jokes or irrelevant material that weighs down the conversation with distractions. In addition, it is irritating whenever one repeats the same point multiple times, with almost exactly the same wording, as if the other participants are hard of hearing.

5. Pick Your Partners

At the end of the day, some people might simply not be good discussion partners for you. Some people cannot follow an argument, or respond to objections, or stay focused on a single topic, or resist the temptation to constantly interrupt. Some people habitually talk for 5+ minutes continuously and seem to forget that other people might have points to contribute. Some people are so close-minded or biased that talking with them is like talking to a brick wall. Whether it's their "fault" is beside the point. The point is that you have to decide whom you want to discuss certain topics with. It is okay to politely decline a conversation that you think will be unproductive or frustrating. Your focus should be on seeking the truth, serving others, and practicing intellectual virtues yourself when you are in conversation.

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[1] See J. P. Moreland and William Lane Craig, *Philosophical Foundations for a Christian Worldview* (2nd edition, Downers Grove: InterVarsity Press, 2017), 81.

[2] I think the ideal conversation is between two people. If you're in a large group, try to let others contribute as much as possible. Unless you are in a group of philosophers, you will probably hear a lot of things that will make you cringe, and the topic will probably shift too quickly for anyone to really make progress on anything. Just try to be chill and roll with it—try not to interrupt. Just let people express what they want to express, contribute something quick when it comes to you, and don't get too frustrated or hung up on anything. No matter how much knowledge you have or research you have done, you can't expect people to just surrender to your judgement every time a word flows from your lips.

Some Informal Fallacies

Here are some informal fallacies that I have encountered but haven't seen named elsewhere:

Prediction fallacy: "If theory *T* predicts potential problem *x*, *T* is more likely than not". This is mistaken. *T* might be more likely than it *would be* if it failed to predict *x*, but this does not imply that it is more likely than not. Moreover, if *x* is a contradiction, then *T* is *false* if it predicts *x*.

Better prediction fallacy: "If T_1 predicts the evidence better than T_2 does, T_1 is a better theory than T_2". This is a non sequitur. T_1 might be overwhelmingly more complicated than T_2, and so be the worse theory.

Evidential limit fallacy: "If we should not expect any more evidence for *T* than what we have, *T* is more likely than not". This is a non sequitur. *T* might be more likely than it *would be* if we *were* supposed to expect more evidence for *T*, but this does not mean it is more likely than not. In addition, if the amount of evidence for *T* is extremely low or zero, then *T* is unlikely, regardless of what our expectations should be.

Falsification fallacy: "If *T* cannot be proven false, then belief in *T* is unjustified". This is completely wrong. The theory "There is consciousness" could not be proven false for me, and yet surely I am justified in believing such a theory on the basis of my immediate experiences.

Argument-label fallacy: Rejecting an argument merely because you can attach a certain negative label to it. For example, rejecting an argument because it's an "argument from silence", or "isn't scientific", or "appeals to flawed human reasoning", or "is out of date", or any other label. Arguments should be evaluated based on their premises and validity, not on whatever negative label one can slap on them. See "Arguments" for six respectable ways to challenge arguments.

Consequent-to-consequence fallacy: "*x* is false, so therefore 'If *y*, then *x*' is also false". This is, of course, a logical error. For example, if you state "If God does not exist, then moral values do not exist", then it would be silly for me to say "That's wrong. Of course moral values exist!" In such a case I have not responded to your claim, but merely provided "a missing premise in a moral argument for God's existence".[1] In order to respond adequately to your claim, I need to address the entire conditional. One way is to argue *against* God's existence while also arguing for the existence of moral values. Another way is to argue that moral values are *more probable* on atheism than on theism.

Fixity fallacy: When one conflates mere *truth* with the stronger notion of *fixity*, by thinking that being true means being fixed or that being fixed means nothing more than being true.[2]

Disagreement fallacy: This occurs when one mistakes another's mere disagreement as an attack or question-begging. An *attack* is when one provides reasons for rejecting another's argument and states that others ought to be persuaded by these reasons. *Question-begging* occurs when

one's conclusion is used to support one's premises. Merely stating that one does not accept an argument is neither an attack nor question-begging.

Narrow comparison fallacy: "If *T* does better than certain other theories, then *T* does better than all other theories (or is more likely than not)". This is obviously a false inference. The fact that Christianity has evidence earlier to its crucial events than do other religions does not imply that Christianity is better than all competing theories or that Christianity is more likely than not.[3]

Narrow evidence fallacy: This is the fallacy of focusing on only one piece of data when there are other data that should be considered when trying to decide among rival theories. For example, "If Jesus rose from the dead, then conservative evangelical Christianity is true; and if he didn't, then materialistic atheism is true. And so all you should really worry about is the resurrection—don't get hung up on other problems you might have with conservative evangelical Christianity". This is faulty reasoning, at least in the absence of an argument that the resurrection is the only piece of (potential) evidence that matters when deciding between evangelical Christianity and atheism.

First of all, there are *lots* of other relevant pieces of data: cosmological data, fine-tuning data, morality and moral knowledge, consciousness, psychophysical harmony, religious experience, miracle stories other than the resurrection, seemingly pointless suffering, evolution, divine hiddenness, religious disagreement, religious harm, religious meager moral fruits, the face-value implausibility of conservative Christian sexual ethics, the reliability of the New Testament, the condoning of slavery in the Old Testament, the divine commands of genocide in the Old Testament, and so on. Second of all, conservative Christianity and materialistic atheism are far from exhaustive. There are thousands of other views one might take: liberal or semi-liberal Protestantism, Catholicism, Orthodox Christianity, unitarian universalism, Islam, Hinduism, Buddhism, Judaism, theological finitism, process theism, religious pluralism, panpsychism, Russellian monism, Spinozism, deism, atheistic non-naturalism, idealism, and so on.

Incomplete information fallacy: "Proposition P is missing important information, and so I do not accept it". This is clearly a mistake. Take the following proposition: 'Exercising is sometimes healthy'. This proposition is missing loads of important information, such as all the situations in which exercising is dangerous (e.g., you are seriously ill). But the proposition is still *true*! It is *true* that exercising is sometimes healthy. Remember: we need to be precise. We are doing analytic philosophy. We are not trying to write self-help manuals.

As another example, suppose I am arguing that Molinism implies that we do not have free will, and one of my premises is 'On Molinism, God knows what every creature would do in any circumstance in which God might place them'. Suppose a Molinist responds by saying, "No! On Molinism, God knows what every creature would *freely* do in any circumstance in which God might place them". This would be a confused and incorrect response. My premise is entailed by their response, since my premise is simply a more general version of their response. Instead of adding words to my premise, the Molinist should engage with my premise as stated.

Different referent fallacy: "You said something about X that I disagree with. Therefore, you are not really talking about X". This is not necessarily true. Suppose I was unaware of all of Donald Trump's lies. And so I say, "Trump is generally an honest person". It would be a mistake for you to respond, "You're not *really* talking about Trump". What you should say is, "You *are* talking about Trump, but you are seriously *mistaken* about him". Perhaps there are situations where the mistake is *so* serious that the reference *is* lost (for example, if I thought that Trump was the first man to the moon), but we should be careful about jumping to that conclusion.

Different premise fallacy: This is the fallacy of saying that you reject someone's premise but in fact rejecting a version of it that you modified by adding, removing, or changing words. Engage with people directly and do not avoid or misrepresent what they are saying.

Founder fallacy: "The founder of your view believed in (or rejected) X. Therefore, you should also believe in (or reject) X". This is obviously mistaken. For example, some people might object to limited atonement as follows: "Hey guys, Calvin didn't believe in limited atonement. Therefore, you guys who call yourselves Calvinists shouldn't believe in limited atonement either". Even if Calvin didn't believe in limited atonement, contemporary Calvinists might have biblical or philosophical *arguments* for limited atonement that they find convincing.

"They Weren't Bothered" Fallacy: "Some person P wasn't bothered by objection X. Therefore, X is not a good objection". For example, "Aquinas wasn't bothered by modal collapse arguments against classical theism. Therefore, modal collapse arguments are no good".

"Prove Me Wrong" Fallacy: "You need to prove my view wrong or show that my view has a contradiction. Otherwise, you'll have given me zero reason to change my mind". This raises the bar unrealistically high, to the point of close-mindedness. In particular, it ignores the role of evidence. I might be able to provide *evidence* that lowers the probability of your view. Perhaps after you see enough evidence, the probability of your view becomes obviously lower than some competitor views, in which case you (rationally) should change your mind, even though I haven't "proven" you wrong.

If someone commits a fallacy and it is crucial to the discussion, wait until they are finished speaking, and then gently point out the fallacy. If someone commits a fallacy in a way that is not crucial to the discussion, it is probably better to wait until after the discussion and then send them a brief, constructive, servant-minded message explaining their error and asking if they agree.

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[1] William Lane Craig, *On Guard: Defending Your Faith with Reason and Precision* (David C. Cook, 2010), 128.

[2] I have defined both of these concepts precisely in the relevant essays below.

[3] Gary Habermas appears to commit this fallacy in Cameron Bertuzzi, "This Historian has NEW Evidence for the Resurrection of Jesus", *Capturing Christianity* (YouTube, 2022).

Technical Terms

Fact. A true proposition or true sentence.

Contradiction. A proposition or sentence of the form '$p \cdot \sim p$'. For example, 'It is raining and it is not raining'. Note that an unmarried bachelor is *not* a contradiction. An unmarried bachelor is an impossible thing. If an unmarried bachelor were to exist, one could truthfully say of him, "He is married and he is not married". That *sentence* would be a contradiction.

Imply. For P to *imply* Q is for it to be the case that if P, then Q. For example: 'If I go to school, then I will learn something'. This is another way of saying, "My going to school *implies* that I will learn something".

Entail. For P to *entail* Q is for it to be the case that *necessarily*, if P, then Q. For example: '*Necessarily*, if the fire touches the ice, then the fire will burn the ice'. In other words, 'The fire's touching the ice *entails* that the fire will burn the ice'.

Logical consequence or *logical entailment*. For Q to be a *logical consequence* of P is for Q to follow from P according to logical laws. One can also say that P *logically entails* Q. For example, by the law of *disjunctive syllogism*, the propositions ⟨If I am not in the house, I am in the car⟩ and ⟨I am not in the house⟩ jointly *logically entail* the proposition ⟨I am in the car⟩. The latter proposition is a logical consequence of the conjunction of the first two.

Inconsistent. For some set of propositions (or sentences) to be *inconsistent* is for them to jointly logically entail a contradiction.

Explain. There are two main senses of the word 'explain'. The first sense is *epistemic explanation*, which concerns articulating, predicting, or making sense of something. For example, 'Let me explain how this response works', or 'The theory of design explains the fine-tuning of the universe'. 'Explain' in this sense is synonymous with 'account for'.

The second sense is *metaphysical explanation*. On this sense, for P to *explain* Q is for Q to exist *because of* P, or for Q to be the way it is *because of* P. Explanation might involve *events*—"The plane was delayed because the airfield got frozen over" is the same as "The airfield's freezing over *explains* the plane's delay". Explanation might involve *situations* or *states*—"The explosion happened because of an unstable chemical structure" is the same as "The unstable chemical structure *explains* the explosion". Explanation might involve *agents* or *objects*—"The universe exists because of God" is the same as "God *explains* the universe".

Assumption. This word should be reserved for either non-derived premises in a formal argument, or beliefs that are held for literally no reason, with literally no support. Unfortunately, as the word is used in the popular world, it is ambiguous among 'belief', 'intuition', 'poorly supported belief', and probably other words too. I will only use it in the sense I have described above.

Using the word ‘assumption’ or ‘assume’ to strike down other people’s views is condescending and lazy, since it gives the impression that the other person is holding their views for literally no reason, with literally no support, and this is virtually never the case.

Identical. I always use this word to refer to *numerical identity*. A and B are thus identical just in case they are really just one and the same thing. For example, saying “my father is identical with my first piano teacher” is really just to say that my father *is* my first piano teacher; “they” are really just one and the same thing under two different names. I will never use ‘identical’ to describe two distinct things that are merely qualitatively similar.

Distinct. I use this word to refer to *numerical distinctness*, which is the exact opposite of numerical identity. A and B are thus distinct just in case they are *two different things*. A and B may or may not be overlapping, however. For example, (supposing ordinary metaphysics) my hand is distinct from my body, even though they overlap (since my hand is a part of my body, and my hand and my body share some parts in common—namely, the fingers of that hand). A fire hydrant is also distinct from my body, even though the two objects do not overlap (neither is a part of the other, and they don’t share any parts in common).

Separate. I use this word to refer to *non-overlapping numerical distinctness*. My hand is distinct from but not separate from my body. On the other hand, a fire hydrant is both distinct from and separate from my body.

Reason. An internal, psychological motivation for action or belief: “My reason for eating was that I was hungry”. “My reason for believing in God is because of the evidence”. I will not use *reason* when describing something non-personal, such as “The reason the machine broke is that it was built poorly”. Other words (e.g., *cause*) work just fine for that.

Brute. Something is *brute* just in case (1) it is true, (2) it is not true by definition, nor by established logical or mathematical laws, and (3) there is no metaphysical or epistemic explanation for its truth.

Arbitrary. For a choice to be *arbitrary* is for it to be made for either *no reason at all*, or for some reason that would work *equally well* for a contrary choice. (The same goes for arbitrary *beliefs*.) For example, suppose I am offered a choice between two slices of pizza. They look exactly the same, and I have no reason to prefer one over the other. However, they both look tasty and I want to eat *something*, so I simply pick one of them. This would be an arbitrary choice, since the tasty appearance and my desire to eat applies equally to both slices.

Now suppose one of the slices is pepperoni and the other is pineapple. I like the meatiness of pepperoni but I like the sweetness of pineapple. If I act on my fondness for the sweetness of pineapple and so choose the pineapple slice, this would *not* be an arbitrary choice, since my fondness for the sweetness of pineapple does not apply equally well to the pepperoni slice.

Or suppose I believe that the number of particles inside my brain is 398454776969. If I have equally good (or bad, or nonexistent) reasons to think that it is some other number, then my belief is arbitrary.

Random. Something is *random* if and only if (1) it is not brought about intentionally, (2) it is contingent and undetermined, and (3) it conceivably could have been different. For example, if a molecule shoots in a certain direction on its own, and it *could have* shot in a different direction, then that motion is *random*. If a future-tense statement like, "I will eat ice cream tomorrow" is contingently true but has no truth-maker, then it is *randomly* true.

Notice that on this definition, something can be random even if it's metaphysically necessary. If it turns out that the number of particles in the initial state of the universe was necessarily exactly 49587655639865457939865, that is still plausibly random, since it conceivably could have been slightly larger or smaller.

Primitive. A ling is *primitive* just in case it is not defined or conceptually analyzed using more basic terms. I discuss this in "Concepts".

Timeless. Something is *timeless* just in case it is not temporally located (i.e., it doesn't exist at any moment or moments of time), not temporally extended (i.e., it doesn't exist for any zero or non-zero duration of time), not temporally related (i.e., it is not before, after, or simultaneous with anything), and not changing (i.e., it doesn't ever gain or lose any properties or parts). 'Atemporal' is a synonym of 'timeless'.

Terms I Will Avoid

There are many words used in philosophy that I have found are unnecessary and lead to confusion, and which I will avoid in this document:

Necessitate. 'P necessitates Q' is ambiguous between 'P entails Q' ($\Box(P \rightarrow Q)$) and 'P implies that necessarily Q' ($P \rightarrow \Box Q$).

Opinion. This word is ambiguous among 'belief', 'preference', and 'intuition'.

Personal Belief. This seems to be no different than 'belief'. A person "personally believes" something if and only if they believe it.

Stipulate. This word has no use that is not covered by other words and phrases, such as 'posit', or 'suppose for the sake of argument', or 'let 'P' be defined as…'.

Objective. If something is "objectively true", then it is just *true*. The word 'objective' is unnecessary. Some people say that certain things—such as mountains or glaciers or works of art

—are “objectively beautiful”. But this just seems to be the same as saying that they are *intrinsically* beautiful. Again, the word ‘objective’ is unnecessary.

Subjective. The sentence ‘X is subjectively true for Ben’ is ambiguous. Does it mean ‘Ben thinks that X’? or ‘Ben has the intuition that X’? or ‘Ben perceives X as true’? or ‘Ben prefers X’? or ‘X is true relative to Ben’? Whatever the case, the word ‘subjective’ is unnecessary and should be either dropped or replaced by a clearer word. We certainly shouldn’t use the term ‘Ben’s subjective truth’ to refer to Ben’s beliefs, since Ben’s beliefs might be false!

Eternal. This word is ambiguous among ‘timeless’, ‘past-eternal’, ‘future-eternal’, and ‘at all times’. Therefore I will not use it except when it is part of a standard label, such as ‘eternal conscious torment’, ‘eternal life’, or ‘eternal security’ (or when I am quoting others); or else modifying the past or the future.

Past-infinite. I will use ‘past-eternal’ instead.

Beginningless. This word is ambiguous between referring to a past-eternal view and a “non-metric initial moment” view (see “Time”).

Future-infinite. I will use ‘endless’ or ‘future-eternal’ instead. Using ‘future-infinite’ to mean ‘future-eternal’ begs the question against one who thinks that an endless future is not infinite.

Inevitable. This word is ambiguous between ‘certain’ and ‘unavoidable’.

THEORIES AND ARGUMENTS

Theories

1. Internal and External Virtues

A *theory* is a set of beliefs.[1] Theories can be assessed according to *internal virtues* and *external virtues*.[2] A theory's *internal virtues* is how well it works on its own. Is it coherent or incoherent? Is it elegant and simple, or horribly complicated? Does it give us a conservative list of things to believe in, or does it commit us to an outrageous number of things? Does it commit us to things that are probable or improbable?[3] Do its components fit well together, or are they in tension? Does it make sense in general, or does it leave a lot of questions and mysteries? Surely in each case, the *former* is preferable to the latter. All things being equal, a theory is more likely when it is more conservative and more coherent, than when it does worse in those areas.

A theory's *external virtues* is how well it accounts for the full *data*. In the context of personal investigation, *data* (or *evidence*) are things that you observe or take for granted. In the context of a discussion, *data* are things that all sides agree upon. Data can come in many forms—historical, scientific, logical, sensory, experiential, intuitive, and so on.[4] Does a theory line up well with the data, or does it tend to ignore or even contradict the data? Surely the former is preferable. So all things being equal, a theory is more likely when it accounts better for more data.

Our task, then, is to *compare* all the serious theories and see which one is the *best overall*. This is *abductive reasoning* or *inference to the best explanation*. This methodology posits that best overall theory is the one most likely to be true. And that's the theory we should accept, if we want the best shot at the truth. And even if we don't find a *best* theory, we might be able to tentatively *rule out* a theory if we find that it is *worse overall* than another theory, since a theory that does worse overall than another theory obviously won't be the best overall.[5]

Now we can define *support*: If we have a theory X, then some consideration C is *support for* X just in case C provides *reason* to believe X—i.e., it raises the epistemic probability of X. In other words, X is more probable in light of C than without paying attention to C. Similarly, if we have two theories, X and Y, then some consideration C is *support for X over Y* just in case C provides reason to believe X instead of Y—i.e., it

- raises the probability of X and either lowers or does not change the probability of Y,
- lowers the probability of Y and does not change the probability of X,
- raises the probability of Y but raises the probability of X by a greater amount, or
- lowers the probability of X but lowers the probability of Y by a greater amount.

Support is either internal or external to theories. If X does better than Y with regard to some internal virtue, then that fact is *support* for X over Y. If datum D is more likely on X than on Y, then D is *support* for X over Y; we can also say that D is *evidence* for X over Y.[6] Now, since *support* is defined in terms of epistemic probability, no consideration can be support *per se* for a theory; a consideration can be support for a theory only from a given point of view.

2. Testing the Methodology

This methodology sounds promising, but let's test it against some clear cases to make sure it produces plausible results.

1. The Nothing Theory. Consider the theory that nothing is real. In one sense, it is certainly the simplest theory—it doesn't commit us to anything at all. But of course, it does about as poorly as possible with the data. My experience confirms for certain that at least something is real. So the Nothing Theory directly contradicts my indubitable experiential data. This makes it worse than many theories that *do* say that something is real.[7]

2. The Everything Conceivable Theory. Consider the theory that anything you can conceive of actually exists. Unicorns, dragons, trolls, wormholes, infinite labyrinths, etc. Since everything that we actually observe is conceivable, this theory easily covers all the data. But of course, *internally*, it does about as poorly as possible. It posits infinitely many unnecessary items, structures, categories, and concepts that do not help the theory in any way. This makes it worse than many theories that shave off all of these extra commitments.

3. The Millenial Theory. Consider the theory that the universe began in 2000 CE; all memories and consequences of earlier years are fake and were simply part of the universe when it began.

I seems implausible for something so enormously complex to just "begin"—but other than that, this theory seems to account for all the data. And in one sense, it does quite well internally, because it shaves off billions of years of history that we might otherwise be committed to. But as Joshua Rasmussen points out, in another sense, it does quite poorly internally: instead of having an orderly, unified account of how things got to where they are, it posits billions of unexplained, unconnected things—i.e., all the particles of the universe popping into existence exactly where they were in 2000 CE. This seems to outweigh whatever benefits we gain by shaving off the past, and so the Millenial Theory seems worse than many theories that place the beginning of the universe at a more plausible starting point such as a big bang singularity.

Even if someone over-prioritizes shaving off the past, the Millenial Theory is still not a good theory. As Graham Oppy points out, if we compare the Millenial Theory to the theory that the universe began in 2001 CE, then the latter will be better overall because it shaves off an additional year. If the 2001 CE Theory is better overall than the Millenial Theory, then we should reject the Millenial Theory.

4. The Empirical Theory. Consider the theory that only says that all *empirical data*—sense perception and results from scientific studies—is true. It seems like such a theory might suffer both *internally* and *externally*. It would suffer internally if it doesn't have any unifying or organizing principles—if it's merely a massive collection of unconnected observations. It would suffer externally if it fails to account for non-empirical data—for example, our basic intuitions about math, logic, personhood, values, and morality.

The challenge of theory-building is clear: If we shave off beliefs to make a theory simpler, we risk failing to account for certain data. But if we add extra beliefs to account for more data, we complexify our theory.[8] The best theory overall, then, will be the one with the best *tradeoff* between best accounting for the most data and being the most internally simple and elegant.[9]

3. Improbability and Surprisingness

Suppose I enter a lottery with a million people, and I win. This is the data. Now suppose someone presents two theories to account for this data:

- Theory A: The lottery was rigged so that I would win.
- Theory B: The lottery wasn't rigged.

Theory A accounts for the data with a probability of 100%. Theory B accounts for the data with a probability of only 0.0001%, since I was only one out of a million people who could have won. So the data is very *improbable* on B, but a million times more probable on A. However, the data is not *surprising* on B, since the probability of my winning wasn't any less than the probability of anybody else winning. The data is also obviously not surprising on A, so the consideration of surprisingness doesn't help us decide between the two theories at all.

In addition, A is a million times more specified than B—it says that the lottery was rigged so that specifically I, out of a million people, would win. So in the final analysis of the given data and interval virtues, A does a million times better *externally* than B, and B does a million times better *internally* than B. Therefore, given the data above, A and B are equally good theories. (Of course, in real life, the data would include a very low probability that the lottery was rigged.)

But back to the non–real-life case. Suppose we *add* to the data that the lottery-maker was *my father*, who is known to rig lotteries for his children. Suppose we have a 50% epistemic chance that my father rigged the lottery in my favor. At first glance, nothing changes. Theory A still accounts for my win with 100% probability, and B still accounts for my win with 0.0001% probability. The outcome is still not surprising on either theory, and A still is a million times more specified than B. The new data about my father doesn't seem to do anything: since there's a 50% chance of rigging versus not rigging, it doesn't weigh in favor of either theory.

But there *is* a key difference from the initial case. Because we know of the father's nepotism, we can divide the possible outcomes given B into two non-arbitrary *types* of outcomes: my father's children, and the people who aren't his children. Given B, the probability that the winner would be one of his children is 0.0001%, whereas the probability that the winner would not be one of his children is 99.9999%. Viewed in this way, the data—that one of his children *did* win—*is* surprising on B, since it was overwhelmingly more likely (given B) that one of his children would *not* win. (And the data about my father is also surprising on B.) So I define *surprisingness* as "improbability considering all the non-arbitrary *types* of possible outcomes", and so

improbability is necessary but not sufficient for surprisingness. And so in the final analysis of this new case, Theory A is the better theory.

The upshot is that we should look both at *individual* possible outcomes and non-arbitrary *types* of possible outcomes when assessing how well theories account for data.

4. Rigging

We must be careful to avoid *rigging*—framing things in a skewed way that makes a theory seem more (or less) likely than it actually is.[10] Below are some examples:

1. Understating Data. Suppose the theist argues that consciousness is evidence for theism over naturalism, since the probability of consciousness on theism is 1 (since God is conscious), whereas the probability of consciousness on naturalism is less than 1 (since conscious creatures could have failed to evolve). Or suppose the naturalist argues that the natural world is evidence for naturalism over theism, since the probability of the natural world is 1 (since naturalism is the view that only the natural world exists), whereas the probability of the natural world is less than 1 on theism (since God could have decided not to create anything).

Both the theist and atheist arguments are true, but in both cases, the data is so understated that it doesn't count for much. The two sides should instead examine more specific data such as *creaturely* consciousness, or specific *features* of the natural world.

2. Understating Theories. One might argue that creaturely consciousness is evidence for Christianity over atheism, since Christianity entails creaturely consciousness, whereas atheism does not. Again, this is true as far as it goes, but it doesn't go very far. "Atheism" here is understated—there are versions of atheism (e.g., panpsychism) that *do* entail creaturely consciousness.

3. Prematurely Ruling Out Theories. Consider the following argument:

1. The fine-tuning in the universe is due to chance, necessity, or design.
2. The fine-tuning in the universe is not due to chance or necessity.
3. Therefore, the fine-tuning in the universe is due to design.

One might support (2) by appealing to how implausible it is for the fine-tuning to be the product of chance or necessity. Once those two options are ruled out, the only other option is design, and so one might conclude that the argument is sound. The problem with this approach is that it fails to consider how likely it would be for the fine-tuning to be the product of *design*. If the fine-tuning turns out to be *less* likely on design than on chance or necessity, then (2) is undercut.[11]

5. The Best Methodology

1. Articulate the competing theories.
2. Assess each theory by its internal virtues.
3. Examine the data one piece at a time, moving from more general to more specific data, and see how well the theories account for each datum. Any data that has not yet been examined should be ignored; any data that has already been examined should be assumed along with both theories.
4. The best theory is the one with the best tradeoff between internal and external virtues.

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[1] This definition was adapted from Graham Oppy.

[2] This methodology is adapted from Graham Oppy and Paul Draper.

[3] Graham Oppy suggests that certain entities are more costly than others: (1) Logical consequences are not costly at all. If my theory already contains p and $p \rightarrow q$, then adding q to my theory does not make it any more costly, since q is simply a logical consequence of my theory and thereby is automatically included. (2) Brute entities seem more costly than explained or analytic entities. An analytic entity is just an automatic component of any theory. An explained entity is at least partially accounted for by other objects of the theory. But a brute entity is not automatic, and it is not accounted for by any other object of the theory; it is sort of "left hanging". (3) There may be a difference in cost between chance outcomes and deterministic outcomes. One might argue that it is more complex to posit that a scenario went a certain way but *could have* gone another way than it is to posit that the scenario simply *had to* go that way. More possibilities means more complexity. On the other hand, one might argue that since deterministic outcomes rule out possibilities, they are more restrictive and specific, and so more costly.

[4] Although it is helpful to distinguish these different categories of data, it is wrong to *deny* that something is relevant merely because it is in a certain category. All arguments are ultimately *philosophical* ones, and so any category of data can potentially be evidence for any conclusion. E.g., if someone wants to use modern-day visions to argue for the resurrection of Jesus, that's fine; we should consider the argument instead of just ruling it out.

[5] Sebastian Montesinos, "Why I'm an Atheist", *Naturalism Next* (Blog, 2022).

[6] Abbreviation is common and acceptable here. For example, saying that something is "evidence for God" is short for saying that something is "evidence for God over atheism", since atheism is the negation of theism.

[7] The Nothing Theory is from Graham Oppy, in Pearce and Oppy, *Is There a God?* (Routledge, 2021), 117.

[8] This makes it obvious that one cannot deal with troublesome data by simply adding that data to their theory. For example, the theist cannot defeat the problem of evil by simply saying that their version of theism includes horrendous suffering. The obvious reason is that they are simply exchanging a low extrinsic value for a low intrinsic value—it doesn't help them at all.

[9] I owe the idea of the tradeoff to Graham Oppy.

[10] Thanks to Joe Schmid and Justin Mooney for bringing the problem of rigging to my attention.

[11] Imagine someone who argues that they will win a lottery because the chance of any other single person winning it is extremely low. (Thanks to Joe Schmid for this type of example.)

Arguments

1. Types of Arguments

An *argument* is a set of premises and a conclusion. Arguments are often used to persuade others, organize one's beliefs, or clarify a line of reasoning. There are three main types of arguments:

A *deductive* argument is one whose conclusion is supposed to be a logical consequence of its premises. A *valid* deductive argument is one whose conclusion actually *is* a logical consequence of its premises. A *sound* argument is one that is valid *and* all of whose premises are true (which means the conclusion is also true). A *minimal* argument is one wherein every premise is required to derive the conclusion—i.e., there are no extraneous or redundant premises. For example:

1. If it is raining, then it is wet outside.
2. It is raining.
3. Therefore, it is wet outside.

An *inductive* argument appeals to observed frequencies or statistics[1] and has a conclusion that is *not* a logical consequence of its premises. For example:

1. The last 1000 times I touched the hot stove, it hurt.
2. Nothing appears to have changed about either the stove or my nerves since my last touch.
3. Therefore, the next time I touch the hot stove, it will hurt.

An *abductive* argument relies on *inference to the best explanation*: the process of examining some data and trying to discern which theory best accounts for it. The premises of an abductive argument are statements about the probability of the data on each rival theory, and the conclusion is a statement about which theory the data supports over and against the other(s). For example:

- *The Data:* My brother returns from a bike ride covered in blood and bruises and scratches.
- *The Uneventful Ride Theory:* My brother had a nice, pleasant, uneventful bike ride.
- *The Incident Theory:* My brother had some sort of unfortunate incident on his bike ride.

1. The probability of the Data on the Uneventful Ride Theory is low.
2. The probability of the Data on the Incident Theory is high (or at least not low).
3. Therefore, the Data is evidence for the Incident Theory over the Uneventful Ride Theory.

In the remainder of this document, I will be focusing only on arguments that are deductive, valid, and minimal—i.e., when I refer to "an argument" in the abstract, I am referring to an argument that is deductive, valid, and minimal.

2. Good Arguments

Arguments are often described as good, strong, persuasive, effective, successful, compelling, etc. (or bad, weak, etc.). Some of these terms—persuasive, compelling—are easily understood and so do not need a technical definition. But such terms appeal to how *people* respond to the arguments, instead of describing the *arguments* themselves. The remaining terms—good, strong, effective, successful—all seem to collapse into the same concept. This concept, which I will simply call 'goodness', is what I wish to focus on in this essay. What makes for a *good* argument when it is used to persuade someone or demonstrate its conclusion?

One might say that a good argument is one that would persuade an ideal group of people who are undecided about the conclusion. But this seems wrong. For if those undecided people are truly *ideal*, then they have *good reasons* for their indecision: they've considered evidence from both sides, and the evidence balances out for them.[2] In this case, they would already be aware of and undecided about some of the premises of the argument, and so the argument would not persuade them; so *no* argument would be good on this definition; thus the definition is useless.

It seems best to say that there are two main ways for an argument to be good. First, an argument can *highlight a problem with a view*: a contradiction, an epistemic problem, self-defeat, self-refutation, etc. On this criterion, an argument can be good regardless of who agrees with it, since it can highlight a problem with a view even if no one accepts that it does so.

Second, an argument can *make its conclusion more epistemically likely*—for example, by taking a piece of data and showing that it is evidence for one view over another view.[3] On this criterion, how good a given argument is reduces to how *persuasive* it is to a given individual.

Of course, if one is trying to *persuade* others with an argument, one should try to select premises that the other person will agree with or at least be sympathetic to. If your argument contains a premise that they already reject, then the argument will be completely unpersuasive to them.

One might object that arguments are not very helpful because they are merely *subsets* of theories. After all, a theory is a long list of beliefs, and an argument is a much shorter list of beliefs that is already contained within some theory. Therefore, someone's theory will *predetermine* which premises of any possible argument they will accept and which they will reject.[4]

This is obviously right as far as it goes: if someone has managed to nail down their attitude about every single proposition, then they will already have an attitude about every single premise in any argument that might be lodged against their view. But firstly, many people have not had the time to do this, and so some arguments might contain premises that they have not considered. Secondly, new data (such as a new scientific discovery) might surface and be fruitfully employed by a premise in an argument. And thirdly, in any case, examining an argument against your view, as well as examining the defenses of the premises of that argument, can be a good opportunity to critically examine your own view.

I find arguments helpful to clarify a line of reasoning toward a conclusion—it gives people an easy sketch of my reasoning and enables them to select which premises they reject (if they reject the conclusion). However, for the purposes of theory comparison, it seems that using arguments is simply unnecessary. Using arguments might also lead to "overloading", where someone presents a bunch of different versions of the same argument. This seems like a waste of time.[5]

We can simply follow "The Best Methodology" outlined in the previous essay: articulate the theories, examine them intrinsically, examine the pieces of data one at a time, and pick the best theory overall. There is no need to "dress up" this process with arguments.[6]

3. Credences in Premises and their Conjunctions

You might have varying *credences* (i.e., levels of confidence) in different premises of an argument, and in their conjunction. Your credence in the conjunction of the premises can range from 0 to 1. If it's 0, then the argument does not support the conclusion at all; the conclusion is no more likely than it is apart from considering the argument. If your credence in the conjunction of the premises is 1, then the argument makes the conclusion certain to you.

A problem arises when we introduce credences into the picture. Suppose I have a valid argument with ten independent premises, and my credence in each individual premise is 0.9. To be consistent, my credence in the *conjunction* of all the premises should be $0.9^{10} = \sim 0.35$. This creates a potential problem; surely you should *believe* something in which you have 0.9 credence; but surely you should *not* believe something in which you have only 0.35 credence. But these two principles lead to an illogical (or at least incomplete) belief system: you believe each premise, but you don't believe their conjunction, even though it's entailed by all of them.

What should we do in such a scenario? One approach is to say that the primary factor for whether or not you should believe in a proposition is how high your credence is in that proposition. On this approach, 'credence' is defined as 'degree of belief', and a credence of less than 0.5 in a proposition just means you don't believe that proposition. In this case, we can believe each premise individually (since our credence in each premise is high), but not believe the conclusion (since our credence in the conclusion is low).[7]

Another approach is to place an overriding importance on logical consistency and closure.[8] If you believe each premise individually, then your belief system includes all the premises, and since the argument is valid, then in order to achieve consistency and closure, your belief system *must also* include the conclusion. In this case, depending on the argument, we should either reject one or more of the premises, suspend judgment about one or more of the premises, or accept the conclusion. On this approach, 'credence' is defined as 'intuition about likeliness—how likely something *seems* to be true', and so even if you have high credence in a premise (i.e., it *seems* very likely to you), you can still choose not to include it in your belief system in order to preserve logical consistency and closure. Regardless of which approach we take, we should continue to re-evaluate our beliefs in order to get closer to the truth.

4. Responding to an Argument

There are six main ways to respond to an argument. Three of them directly challenge the premises or validity of the argument. Three of them challenge the soundness of the argument without directly challenging the premises or validity:

Direct Responses:

- *Dispute the validity.* Argue that the argument commits a formal fallacy or equivocation, or at least ask for a formal derivation (or attempt one yourself).
- *Rebut one or more of the premises.* Provide rational reasons to think that one or more of the premises is false.
- *Undercut one or more of the premises.* Examine the reasons that the proponent provided for accepting the premises, and rebut these reasons (thereby removing support for the premises).

Indirect Responses:

- *Philosophical ad hominem.* Argue that the *proponent* of the argument should not accept their own argument, for one or both of the following reasons:
  - *Parody argument.* Argue that there is a parody argument that uses the same reasoning as the original argument, and is just as good, but entails an obviously false conclusion (or a conclusion that the proponent of the original argument does not accept).
  - *Proves too much.* Argue that the original argument *itself* entails a false conclusion (or a conclusion that the proponent of the original argument does not accept). For example:

    1. Everything has a cause.
    2. If the universe has a cause, then God exists.
    3. Therefore, God exists.

    This argument is valid, and the conclusion might be true, but the first premise is too extreme and entails that *God* has a cause.
- *Moorean shift.* Use the negation of the conclusion as a premise in an argument against one of the premises of the original argument. For example, if someone argues:

    1. There is pointless evil.
    2. If God exists, there is no pointless evil.
    3. Therefore, God does not exist.

  You can do a Moorean shift by arguing:

    1. God exists.
    2. If God exists, there is no pointless evil.
    3. Therefore, there is no pointless evil
- *Cumulative case.* Argue that, even if you find the premises plausible, arguments *against* the conclusion to be even more plausible. In other words, the cumulative case against the conclusion is stronger than the cumulative case for it.

5. Burden of Proof

A *burden of proof* is a responsibility to argue for something. One might say that if I am trying to convince an agnostic that God exists, then *I* have the burden of proof, since I am the one making an argument, whereas the agnostic need only decide whether my argument persuades them. If I present an argument, the agnostic can say, "I'm not convinced of your first premise, but I don't need to argue that it's incorrect; *you* have the burden of proof to show that it's correct". On the other hand, if they lodge an objection to my argument, it would be inappropriate for me to merely say, "I'm not convinced". After all, *I'm* the one trying to convince *them*!

I find the concept of a burden of proof awkward and unhelpful. If I present a theistic argument to an agnostic, and the agnostic has agreed to participate in the conversation, then if the agnostic is not convinced of one of my premises, it seems that—in the context of the discussion—they should explain *why* they are not convinced. They should provide *reasons* for why they are not convinced. Or, at least, it would be *helpful* for them to do so, as it would help me understand their thinking and thereby progress the discussion. In general, it seems that *everyone* should be willing to support any positive or negative claims that they assert in a discussion.

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[1] Igor Douven, "Abduction", *Stanford Encyclopedia of Philosophy* (2021).

[2] Thanks to Joe Schmid for this point. See Joe Schmid, "Dr. Graham Oppy on the Nature of Arguments (With Existential Inertia as Bonus)", *Majesty of Reason* (YouTube, 2020).

[3] In this case, the argument *itself* could be seen as a piece of evidence (something that makes a theory more likely), though in a derivative sense: it inherits its evidential status from the data that its premises are about.

[4] Graham Oppy, in Graham Oppy and Kenneth Pearce, *Is There a God?* (Routledge, 2021).

[5] E.g., Kenneth Pearce in his opening statement in *Is There a God?*

[6] The language of 'dressing up with arguments' is from Graham Oppy.

[7] Thanks to Jeremy Kidd for this idea.

[8] A *logically consistent* theory is one that does not logically entail a contradiction. A *logically closed* theory is one that includes all of its logical consequences. For example, if I believe P and P → Q individually, but I don't believe Q—maybe I suspend judgement on Q, or I haven't considered Q—then my theory is not logically closed.

Probability

The *epistemic probability* of something is how likely it is, given what we know. I will simply use the word "probability" for this concept. If the probability is 0, then we can be certain that it is false. If the probability is 1, then we can be certain that it is true. If the probability is between 0 and 1, then we can't be certain either way. Sometimes it is easy to assign numbers to probabilities. If I flip a fair coin, the probability that it will land heads is about 0.5. Other times, it is difficult to assign numbers to probabilities. How likely is it to rain tomorrow?

We can assign a probability to anything we aren't sure about, even if we think there *is* a correct answer as to whether it's true or false. For example, if I flip a fair coin and let it land without looking at it, there *is* a correct answer as to whether it landed heads or not. But *given what I know*, I can only assign a probability of around 0.5 to the hypothesis that it landed heads.

1. Conjunctions

Hypotheses can be *conjoined*, to make a *conjunction*. The conjunction states that *all* of the conjoined hypotheses are true. Normally, the conjunction will have a *lower* probability than any one of the conjoined hypotheses. This makes sense: If I flip two fair coins, suppose the two hypotheses are 'Coin 1 will land heads' and 'Coin 2 will land heads'. The probability of *each* hypothesis is about 0.5, but the probability that *both* of them are true is only about 0.25. The probability of a conjunction of independent hypotheses is obtained by *multiplying* the probabilities of all the conjoined hypotheses. So we can derive the *conjunctive equation*:[1]

$$P(A \cdot B \cdot C \cdot \ldots) = P(A) \times P(B) \times P(C) \times \ldots$$

2. Disjunctions

Hypotheses can also be *disjoined*, to make a *disjunction*. The disjunction states that *at least one* of the disjoined hypotheses is true. Normally, the disjunction will have a *higher* probability than any one of the disjoined hypotheses. This makes sense: If I flip two fair coins, suppose the two hypotheses are "Coin 1 will land heads" and "Coin 2 will land heads". The probability of *each* hypothesis is about 0.5, but the probability that *at least one* of them is true is about 0.75.

The probability of the disjunction of independent hypotheses is the probability that *at least one* of the disjoined hypotheses is true. This is equivalent to the probability that it is false that *all* the disjoined hypotheses are false. The probability that something is false is one minus the probability that it is true: $P(\sim H) = 1 - P(H)$. So we can derive the *disjunctive equation*:[2]

$$\begin{aligned} P(A \vee B \vee C \vee \ldots) &= P(\sim(\sim A \cdot \sim B \cdot \sim C \cdot \ldots)) \\ &= 1 - P(\sim A \cdot \sim B \cdot \sim C \cdot \ldots) \\ &= 1 - P(\sim A) \times P(\sim B) \times P(\sim C) \times \ldots \\ &= 1 - (1 - P(A)) \times (1 - P(B)) \times (1 - P(C)) \times \ldots \end{aligned}$$

We can also speak more generally of disjoining *probabilities*. For example, if I disjoin the probabilities 0.5 and 0.6, the result is 0.8; this is the probability that at least one hypothesis represented by the disjoined probabilities is true. This is useful for gauging the combined support of multiple pieces of evidence for a hypothesis, H. A piece of evidence can support H on a scale from 0 to 1, where 1 means that the evidence certainly implies that H is true, and 0 means that the evidence does not support H at all. (Importantly, 0 doesn't mean that the evidence *counts against* H; the evidence might be neutral with respect to H.) If one piece of evidence provides a support of 0.5 for H, and another piece of evidence provides a support of 0.6 for H, we can see via disjunction that their *combined* support for H is 0.8.

3. Probability of an Argument

How do we calculate the probability of the conjunction of the premises of a deductive argument? If all the premises are independent, and the conclusion is the least likely conclusion that can be derived from the premises, then we can calculate the probability of their conjunction by simply multiplying together their individual probabilities. For example:

1. A
2. B
3. A · B Conj 1, 2

If A has a probability of 0.6, and B has a probability of 0.5, then if A and B are independent, then A · B has a probability of 0.6 × 0.5 = 0.3.

But, as Tim McGrew and John DePoe point out, there are cases where the premises are *not* all independent.[3] Suppose that B has a prior probability of 0.5, but if A is true, then B has a probability of only 0.4. In this case, the probability of A · B is only 0.24, not 0.3.[4]

And, as McGrew and DePoe point out, there are cases where the conclusion is *not* the least likely conclusion that can be derived from the premises. For example:

1. A
2. B
3. A · B Conj 1, 2
4. (A · B) ∨ C Add 3

Suppose that A, B, and C have probabilities of 0.6, 0.5, and 0.9, respectively. If all we did was multiply the probabilities of the premises, we might think that (4) is as improbable as 0.6 × 0.5 = 0.3. But because of the addition of C, (4) is *not* the least likely conclusion that can be derived from (1) though (3). Assuming that A, B, and C are independent, and in the absence of counterevidence against C, (4) is at least as likely as 1 – ((1 – (0.6 × 0.5)) × (1 – 0.9)) = 0.93.

For cases where we can't tell whether the premises are independent, or whether the conclusion is the least likely conclusion that can be derived from the premises, McGrew and DePoe provide an equation that establishes a lower bound on the probability that an argument confers to its conclusion (the first line is an adaptation of their equation; the other lines are my derivations):

C = some conclusion
a, *b*, *c*, … = the premises of a deductively valid argument for C
U*x* = uncertainty about *x*. U*x* = P(~*x*) = 1 – P*x*

$$\begin{aligned} U(C) &\leq (Ua + Ub + Uc + \ldots) \\ 1 - P(C) &\leq ((1 - Pa) + (1 - Pb) + (1 - Pc) + \ldots) \\ -P(C) &\leq -1 + ((1 - Pa) + (1 - Pb) + (1 - Pc) + \ldots) \end{aligned}$$

Therefore:

$$P(C) \geq 1 - ((1 - Pa) + (1 - Pb) + (1 - Pc) + \ldots)$$

Notice that if the right side of the final equation turns out to be less than or equal to zero, that means that P(C) is as low as zero. Arguably, an argument that could lend as little as zero support to its conclusion does not give someone a positive reason to accept that conclusion.[5]

4. Conditional Probability

The *conditional probability* of something is how likely it is when we assume that something else is true. The way to phrase conditional probability is to say, "How likely is A *given* B?" For example, how likely is it that my coin will land heads, *given* that I have heavily weighted it to land heads? The conditional probability is close to 1, or at least more than 0.5.

A common usage of conditional probability is to ask how likely a piece of *known evidence* would be if we assume that an *unknown hypothesis* is true.[6] For example, we might not know whether Ben is the murderer, but we do know that Ben bought a gun the night before. So we can ask: assuming the hypothesis that Ben *is* the murderer, how likely would it be that Ben bought a gun the night before?

(Essay continues on the following page.)

5. Bayes' Theorem

5.1. The Short Form of Bayes' Theorem

The probability of hypothesis H is nH / nT, where nH is the number of possible outcomes in which H is true, and nT is the number of total possible outcomes, including those in which H is true:

$$P(H) = \frac{nH}{nT}$$

Let E be a piece of evidence in the form of a proposition. We can use E to narrow down the outcomes to be considered. So we can calculate P(H|E), which is the probability of H *given* E—i.e., the probability of H considering *only* outcomes in which E is true. So nH will be replaced by n(H∧E), which is the number of possible outcomes where *both* H and E are true. And nT will be replaced by nE, which is the number of possible outcomes where E is true:

$$P(H|E) = \frac{n(H \wedge E)}{nE}$$

Since H and E are arbitrary propositions, we can generalize this equation and say that for any two propositions X and Y, P(X|Y) = n(X∧Y) / nY. Now we can take the above equation and multiply the numerator by nH / nH, since that is equivalent to multiplying by 1. For the same reason, we can then divide both the numerator and denominator by nT. I have also rewritten n(H∧E) as n(E∧H), for reasons which become clear in the next step:

$$P(H|E) = \frac{\frac{n(E \wedge H)}{nH} \cdot \frac{nH}{nT}}{\frac{nE}{nT}}$$

We can now make some easy substitutions. We already saw that nH / nT equals P(H), so we can substitute that in. By the same token, then, we can replace nE / nT with P(E). Finally, since we saw that P(X|Y) = n(X∧Y) / nY, we can replace n(E∧H) / nH with P(E|H). This gives us the *short form* of Bayes' theorem:

$$P(H|E) = \frac{P(E|H) \cdot P(H)}{P(E)}$$

So the probability of a hypothesis given some evidence is equal to the probability of the evidence given the hypothesis, multiplied by the prior probability of the hypothesis, and divided by the prior probability of the evidence. The *prior probability* of something is simply its probability judged apart from any conditions.

5.2. The Long Form of Bayes' Theorem

We can be more specific about P(E). To do this, let's first convert it back to nE / nT. Next, we can recognize that out of the possible outcomes in which E is true, H might be true in only *some* of them. So we can partition nE into two groups of outcomes: the outcomes in which *both* E and H are true, and the outcomes in which E is true and H is false:

$$P(E) = \frac{nE}{nT} = \frac{n(E \wedge H)}{nT} + \frac{n(E \wedge \sim H)}{nT}$$

We can multiply the first addend by nH / nH, and then multiply the second addend by n~H / n~H:

$$\frac{n(E \wedge H)}{nH} \cdot \frac{nH}{nT} + \frac{n(E \wedge \sim H)}{n\sim H} \cdot \frac{n\sim H}{nT}$$

Now we can make some easy substitutions:
- We can replace n(E∧H) / nH with P(E|H).
- We can replace nH / nT with P(H).
- We can replace n(E∧~H) / n~H with P(E|~H).
- We can replace n~H / nT with P(~H).

This gives us P(E|H) · P(H) + P(E|~H) · P(~H), which we recall is the denominator of Bayes' theorem. Thus, we now have the *long form* of Bayes' theorem:

$$P(H|E) = \frac{P(E|H) \cdot P(H)}{P(E|H) \cdot P(H) + P(E|\sim H) \cdot P(\sim H)}$$

5.3. An Example Application of Bayes' Theorem

Suppose you receive a positive test result for the flu. So E is the proposition, 'You receive a positive test result for the flu'. Let's say, then, that H is the proposition, 'You have the flu'. Now, you know that 20% of relevant people have the flu, so P(H) = 0.2 and P(~H) = 0.8. In addition, the test you took recognizes the flu only 90% of the time; 90% of patients with the flu receive a positive result, and 10% of patients with the flu receive a negative result. Therefore, P(E|H) = 0.9. Moreover, the test you took recognizes a healthy person only 75% of the time; 75% of healthy patients receive a negative result, and 25% of healthy patients receive a positive result. Therefore, P(E|~H) = 0.25. Therefore, using Bayes' theorem, the probability that you have the flu is 47%:

$$P(H|E) = \frac{0.9 \cdot 0.2}{0.9 \cdot 0.2 + 0.25 \cdot 0.8} \approx 0.47$$

[1] Key to logical notation:

P	the probability of
C	one's credence in
|	given
∧	and
∨	or (inclusive)
~	not (i.e., "It is false that…")

[2] All the propositions of a disjunction (or conjunction) must be independent; otherwise the equation will produce a probability that is too high, since some propositions will end up being double-counted. For example, if the probability of H is 0.5, and one wishes to know the probability of H∨H, it is clearly illegitimate to do the following:

$$\begin{aligned} P(H \vee H) &= 1 - (1 - P(H)) \times (1 - P(H)) \\ &= 1 - (1 - 0.5) \times (1 - 0.5) \\ &= 1 - (0.5) \times (0.5) \\ &= 1 - 0.25 \\ &= 0.75 \end{aligned}$$

Similarly, it is illegitimate to assume that multiple arguments for H constitute a strong cumulative case for H, without first making sure that the arguments are independent of each other. For example, one cannot use the disjunctive equation on the following two arguments:

1. Suffering exists.
2. If suffering exists, God does not exist.
3. Therefore, God does not exist.

4. Pointless suffering exists.
5. If pointless suffering exists, God does not exist.
6. Therefore, God does not exist.

Clearly, pointless suffering is being double-counted here, so the disjunctive equation will produce an inflated probability for "God does not exist". Therefore one must be careful to evaluate each argument in exclusion of considerations that would support other arguments. Thanks to Dr. Ted Poston for this insight.

[3] Timothy McGrew and John DePoe, "Natural Theology and the Uses of Argument", *Philosophia Cristi* 15.2 (2013).

[4] There might also be cases where one premise *raises* the probability of another premise. For example, considering a fair, six-sided die that must land on one of its six faces:

1. I rolled 1, 2, or 3.
2. I rolled 1, 2, or 4.
3. Therefore, I rolled 1 or 2.

Simply multiplying the credences of the two premises together would give us a $0.5 \times 0.5 = 0.25$ probability for the conclusion, even though we already know from looking at the conclusion that its probability is 1/3. The discrepancy occurs because although (2), on its own, has a probability of 0.5, (2) *given* (1) has a probability of 2/3.

[5] Thanks to Jeremy Kidd for this point.

[6] I owe the idea of contrasting *known* and *unknown* to Hud Hudson.

The Doomsday Argument

1. The Country Argument

Imagine a world with only 200 persons: 100 white persons in Alabama and 100 black persons in Botswana. One of the Alabamians travels to Botswana and invades it. In retaliation, the Botswanans administer a worldwide virus that gives all the white persons amnesia. Fred, a white person, wakes up one day and wonders where he is. There are 99 white persons in Alabama and 1 white person in Botswana. Therefore, there is a 99% chance he is in Alabama and a 1% chance he is in Botswana. This is provable with Bayes's theorem.[1]

2. The Doomsday Argument

Now imagine two scenarios: *Doom*, in which humanity goes extinct by 2500, such that at most 180 billion humans will have ever lived; and *Life*, in which humanity survives at least another million years, so that at least 140 trillion humans will have ever lived. Right now, it's the year 2024, and roughly 8 billion different humans will have lived some time during this year. Let's assume that Doom and Life are the only two possible scenarios. Let's also assume that, apart from the data of the current year, Doom is 5% likely and Life is 95% likely.

Now, both Doom and Life predict with 100% probability that *some* human or other would be alive in 2024. But neither Doom nor Life predicts with 100% probability that *you* would be alive in 2024. In Doom, 4% of humans are alive in 2024; whereas in Life, only 0.005% of humans are alive in 2024. Therefore, from *your* perspective, the fact that *you* are alive in 2024 is *far more likely* on Doom than on Life. After all, on Life, it's far more likely that you would have been born somewhere within the million years after 2500. And so from your perspective, the fact that you *are* alive in 2024 is extremely strong *evidence* for Doom over Life. Plugging this evidence into Bayes' theorem, we get the result that Doom is 98% likely and Life is 2% likely.[2] This is concerning, since it seems to prove that it is extremely more likely that humanity will go extinct in the next 500 years than that humanity will survive at least another million years. Of course, we could tweak the numbers, or we could consider additional scenarios that lie somewhere in between Doom and Life, but it is difficult to see what sort of tweaking would lower Doom's probability to anything less than concerning.

3. Three Errors

I want to point out three errors one might make regarding the Doomsday Argument. The first is to respond to the argument by saying, "Assuming that humanity lives another million years, *some people* are going to find themselves in the year 2024 and therefore will be prone to Doomsday reasoning. This fact cancels out Doomsday reasoning". This is mistaken. That fact does *not* cancel out Doomsday reasoning. Doomsday reasoning is simply Bayesian reasoning, which is provable from basic laws of probability. The aforementioned fact simply highlights that there can be strong evidence for a false theory. In the Country Argument, Fred's skin color is

strong evidence that he is in Alabama, but it shouldn't make him *certain* that he's in Alabama, since he knows that one white person is in Botswana. If Fred were in Botswana, his skin color would *still* be strong evidence for the false theory that he is in Alabama. And it might even be the case that, overall, Fred is *justified* or even *rationally obligated* to believe the false theory that he is in Alabama. The mere third-person observation that someone else is in a position to justifiably believe a false theory does not remove *that person's* justification for believing that theory.[3]

The second error is to respond to the argument by saying, "On Life, it's *not* far more likely that you would have been born somewhere within the million years after 2500, because you were *necessarily* born in the year that you were born; it was *impossible* for you to be born at any other time, since your exact birth time is an essential part of your history". But even if a person's exact birth time is an essential part of their history, this response illicitly considers your actual birth year when calculating the probability that you would be born at a given time. True, *given* that you were born in (say) 1998, you now know that it was *metaphysically* impossible for you to have been born in any other year. But calculating the *epistemic* probability that you would have been born in 1998 versus another year comes *prior* to considering that you were born in 1998—you're supposed to pretend that you *don't know* when you were born, and then ask, "Given that I'm a living person, and, for all I know, I could have been born in any year from 750,000 BCE to 1,000,000 CE, what is the probability that I was born in 1998?", analogous to how Fred inquires about the probability of his (a white person) living in Alabama versus Botswana, *without* knowing which country he is in.

Again, the relevant probability is *epistemic probability*. If you had to consider all of your knowledge in making any probability judgement, then trying to find out the epistemic probability of any past event would just give a result of 1 on necessitarianism (the view that everything that happens, happens necessarily), which is obviously the wrong result.

The third error is to say that Doomsday reasoning rules out the possibility of an endless heaven. This is mistaken, since one could develop a theory according to which Christ returns in the year 2500, after which everyone goes to heaven and no more humans are born. This theory posits the same number of humans as Doom does, and so it does not suffer the same problem that Life suffers by positing 140 trillion humans.

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[1] $$\frac{1 \cdot \frac{99}{200}}{1 \cdot \frac{99}{200} + \frac{1}{101} \cdot \frac{101}{200}} = 0.99$$

[2] $$\frac{\frac{8{,}000{,}000{,}000}{180{,}000{,}000{,}000} \cdot 0.05}{\frac{8{,}000{,}000{,}000}{180{,}000{,}000{,}000} \cdot 0.05 + \frac{8{,}000{,}000{,}000}{140{,}000{,}000{,}000{,}000} \cdot 0.95} \approx 0.98$$

$$\frac{\frac{8{,}000{,}000{,}000}{140{,}000{,}000{,}000{,}000} \cdot 0.95}{\frac{8{,}000{,}000{,}000}{140{,}000{,}000{,}000{,}000} \cdot 0.95 + \frac{8{,}000{,}000{,}000}{180{,}000{,}000{,}000} \cdot 0.05} \approx 0.02$$

For a longer but very clear presentation of this problem, see Nick Bostrom, "A Primer on the Doomsday Argument" (2023). My one complaint about Bostrom's article is that it doesn't explicitly state that it is assuming for the sake of simplicity that Doom Soon and Doom Late are the only two possible scenarios. Thanks also to my friend Mohamed for piquing my interest to work through the Doomsday Argument myself. I had previously heard of it, but had not quite grasped the full reasoning.

[3] I made this error when discussing the argument with Mohamed. Thanks Mohamed for correcting me and for highlighting the difference between the third-person and first-person perspectives.

The Gambler's Fallacy

1. The Gambler's Fallacy

A gambler picks up a 20-sided die. If he rolls a 20, he wins. Otherwise, he loses. So each roll has a 5% chance of winning. He takes 99 rolls and loses them all. "Dang, I just lost all of these," he says. "I'm due for a win! There was only a 0.59% chance that I would lose 100 times in a row.[1] That means there's a 99.41% chance that I'll win this next roll!"

Obviously, this is an error. The next roll isn't affected by the earlier rolls; there's still only a 5% chance of winning the next roll. *Before* he started rolling, there was a 99.41% chance of winning at least once out of 100 rolls. And it *was* unlikely that he would lose the first 99 rolls. But he *did* lose them, and *given that*, the probability of winning at least once out of his first 100 rolls is 5%, since he has only one roll left.

2. The Inverse Gambler's Fallacy

A gambler picks up a 20-sided die and wins on the first roll. "Whoa!" he says. "No way that happened in just one try! Other people must have already taken a bunch of rolls. If my roll were the only one, a win would be only 5% likely. But if there were 99 rolls before mine, the probability of at least one win was 99.41%. So I should infer that there were many earlier rolls."

This is also an error. The gambler's roll wasn't affected by earlier rolls. His roll had a 5% chance of winning, whether there were 0 rolls or 99 rolls before his. True, positing previous rolls raises the probability that there would be *at least one* win. But positing previous rolls does not raise the probability that the *gambler's* roll would win—that probability is still 5%.[2]

3. The Multiverse

Some people discover that it is incomprehensibly unlikely that the universe would produce conscious life, since the initial constants of the universe could have taken on trillions and trillions of different possible values, and the vast majority of those possible values would prohibit conscious life from developing.[3] "Wow!" these people say. "No way that happened in just one try. There must be many other universes. If there are billions of other universes, then the probability of conscious life showing up in at least one universe is very high. So we should infer that there are many other universes."

Are these people committing the inverse gambler's fallacy? Some argue that they are. After all, positing billions of *other* universes does not increase the probability that *this* universe would be life-permitting. Therefore, positing the multiverse does nothing to account for—to remove the mystery of—the fine-tuning of *this* universe. This is the *Inverse Gambler's Fallacy Objection* or the *This Universe Objection* to the multiverse response to the fine-tuning of the universe.

The Inverse Gambler's Fallacy Objection seems to be mistaken. There is a relevant difference between the inverse gambler's case and the multiverse case, which I illustrate with a short story:

> Alex shows Ben a video on his phone. In the video, Alex flips seven coins, all of which come up heads.
> "Whoa!" Ben says. "How did you do that?"
> Chad walks up. "He's probably just been trying over and over again. If he tries 200 times, there's about an 80% chance of making it at least once!"[4]
> Ben squints suspiciously. "But all the attempts are independent from each other. So positing all those other attempts doesn't explain why all the coins came up heads *in that particular attempt he showed me*!"

Ben is clearly missing the point here. He's correct that positing all the other attempts doesn't explain the particular successful attempt. But clearly, we don't need to explain why that *particular* attempt was successful. All we need to explain is why *some or other* attempt was successful; once we've done that, there is no problem with just accepting the particular successful attempt as an unlikely chance outcome.

Notice the difference between the inverse gambler's case and the coin case. In the inverse gambler's case, what needs explaining is the more specific evidence of the *particular successful attempt*, which is not explained by positing many other attempts. But in the coin case, what needs explaining is the *more general evidence* that *some or other attempt* was successful, and this *is* explained by positing many attempts. So what makes the difference between the two cases? Why is it that, in the inverse gambler's case, the more specific evidence needs explaining, whereas in the coin case, only the more general evidence needs explaining?

The difference seems to be the fact that, in the coin case, *no failed attempts would be observed*. Alex would never show Ben or Chad any of the videos of the failed attempts. Alex would only show a video of a successful attempt. So although the fact that the attempt was successful (instead of failed) is itself completely a matter of chance, the fact that Ben and Chad *observed* a successful attempt (versus a failed attempt) is *not* completely a matter of chance; Alex's selection of only the successful video *guarantees* that Ben and Chad would never observe a failed attempt.

Thus, in the coin case, there is an *observer selection effect* which removes the need to explain the particular successful attempt. After all, just like Chad said, out of 200 attempts, there would be about an 80% chance of having at least one successful attempt, and *that* successful attempt would be the only one that Alex would show to people. Thus, all that needs explaining is the fact that there is at least one successful attempt.

In the inverse gambler's case, on the other hand, there is no selection effect. The gambler's winning roll, *and* the fact that he observed his winning roll, were *both* completely a matter of chance, with no selection at play. Thus, positing other rolls does not help to explain the fact that he observed his winning roll.

So: the presence of an observer selection effect (whereby observing failed attempts is impossible) removes the need to explain the more specific evidence, making it only required to explain the more general evidence. Now, the question is: does the multiverse create an observer selection effect?

The answer is obviously Yes: no one can observe that their own universe did not produce conscious life, since if there were no conscious life, there would be no one alive to observe anything. Therefore, the selection effect applies to everyone. Therefore, inferring a multiverse on the basis of the fine-tuning evidence is not an instance of the inverse gambler's fallacy.[5]

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[1] $\left(1 - \frac{1}{20}\right)^{100} \approx 0.0059.$

[2] Maybe he is justified in positing many rolls for *other* reasons—i.e., that he is in a casino, and so it's likely that many people have rolled that die before. But he's not justified in positing many rolls *merely* because of his win.

[3] See Bandy, "Teleological Arguments".

[4] $1 - \left(1 - \frac{1}{2^7}\right)^{200} \approx 0.79.$

[5] See Neil Manson in Phil Halper, Alex Malpass, and Daniel Linford, "Episode 7: The fine-tuning argument's hidden assumptions with Neil Manson", *The Sci-Phi Show* (Podcast, 2024). Manson first gave me the idea that the selection effect made the relevant difference. See also Robert Allen's comments on Steven Novella, "Multiverses and the Inverse Gambler's Fallacy", *NeurologicaBlog*.

See Neil Manson, "Cosmic Fine-Tuning, the Multiverse Hypothesis, and the Inverse Gambler's Fallacy", *Philosophy Compass* 17 (2022) and Roger White, "Fine-Tuning and Multiple Universes", *Noûs* 34.2 (2000). Thanks to Neil Manson for sending me both of these papers.

Cumulative Cases

A *cumulative case* for hypothesis H is a case made by considering multiple pieces of evidence.[1] Bayes' theorem provides an easy way to do this. We simply substitute in the four values:

- P(H) = The intrinsic probability of H, without considering any evidence
- P(~H) = 1 – P(H)
- P(E|H) = The probability of the *conjunction* of the different pieces of evidence *given* H
- P(E|~H) = The probability of the *conjunction* of the different pieces of evidence *given* ~H

Let's try this with theism. Below are thirteen data points that are relevant to the truth of theism:

1. The universe is contingent, complex, and bounded.
2. Time had a beginning.
3. Worldwide, people have strong intuitions about real moral values and duties.
4. The initial constants and quantities of the universe are extremely fine-tuned for intelligent, embodied life.
5. Creaturely consciousness or intentionality exists.
6. Creatures recognize beauty in the universe.
7. Creatures frequently experience miraculous events and powerful religious experiences.
8. The earth's history is filled with widespread, extreme, and seemingly pointless suffering.
9. There is extreme religious diversity, including non-theistic religions.
10. Many persons who truly would like to find God or even be confident of God's existence fail to do so, despite genuine efforts.
11. On some levels, the universe seems like a random, chaotic mess.
12. In scientific studies, intercessory prayer had no discernible effect on outcomes.[2]
13. Genuine theistic believers and institutions often fail to produce better persons or good effects, but rather often produce serious harm to the world, as well as promote dangerous and damaging beliefs.

Three important points:

- Examine the data one piece at a time, moving from general to specific, and see how well theism and atheism account for each datum. Any data that has not yet been examined should be ignored; any data that has already been examined should be assumed. For example, when examining datum (8), one should ignore datum (13) and assume that data (1) through (7) are 100% likely on both theism and atheism.
- Be consistent with your concepts. If you use one concept of God when judging how likely the fine-tuning is, don't switch to a different concept of God when judging the intrinsic probability of theism.
- If you don't think that a piece of data is true (for example, data (1) and (2) are controversial), just assign it a probability of 1 given both theories so that it doesn't affect the calculation.

An example of the results for someone looks like this:[3]

```
                          On Theism    On Atheism
Contingency:                    90%           40%
Finitism:                       80%           40%
Morality:                      100%          100%
Fine-Tuning:                    40%            1%
Consciousness:                  70%           10%
Beauty:                        100%           60%
Experience:                    100%           40%
Suffering:                      10%          100%
Religious Diversity:            35%           90%
Hiddenness:                     10%          100%
Chaos:                          45%          100%
Ineffective Prayer:             30%          100%
Religious Harm:                 35%           75%

Total Probability of Evidence on Theism:  0.00003334%
Total Probability of Evidence on Atheism: 0.00259200%
Intrinsic Probability of Theism:                  40%
Intrinsic Probability of Atheism:                 60%
```

$$\frac{0.0000333396 \cdot 0.4}{0.0000333396 \cdot 0.4 + 0.00002592 \cdot 0.6} \approx 0.4616$$

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Total Probability of Theism:                  46.16%
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[1] A cumulative case is different from a theory comparison; I have already discussed how to do a theory comparison in "Theories". One can of course compare multiple theories by making a cumulative case for each of them.

[2] K. S. Masters and G. I. Spielmans, "Prayer and health: Review, meta-analysis, and research agenda", *Journal of Behavioral Medicine*, 30.5 (2007): 447.

K. S. Masters, G. I. Spielmans, and J. T. Goodson, "Are there demonstrable effects of distant intercessory prayer? A meta-analytic review", *Annals of Behavioral Medicine*, 32.1 (2006): 21-26.

[3] Equations:

```
0.90 * 0.80 * 1.00 * 0.40 * 0.70 * 1.00 * 1.00 * 0.10 * 0.35 * 0.10 * 0.45 * 0.30 * 0.35
0.40 * 0.40 * 1.00 * 0.01 * 0.10 * 0.60 * 0.40 * 1.00 * 0.90 * 1.00 * 1.00 * 1.00 * 0.75
(0.0000333396 · 0.4) / ((0.0000333396 · 0.4) + (0.00002592 · 0.6))
```

LOGIC AND LANGUAGE

Truth

1. Definition

What is truth? Some people treat it as an *object*, but that doesn't seem right. I am an object. Maybe tables and chairs are objects. But *truth* doesn't fit into that category. One might think that truth is a *property*. For example, the proposition ⟨The sky is blue⟩ could have the property of *truth* (i.e., the property of *being true*). But why not simply say that the sky is blue? Why not simply describe how things are? Why involve notions of truth, propositions, and properties?

According to *deflationism*, talking about "truth" is really just a convoluted way of talking about how things are. So we don't have to treat truth as an object that exists in addition to all the other objects we take for granted. Saying that the proposition ⟨I am sitting on my bench⟩ has the property of truth reduces to simply saying that I am sitting on my bench.

It seems clear that things either *are* or *are not* a certain way. Either God exists, or God does not exist. Either the cat is on the mat, or the cat is not on the mat.[1] There seems to be no conceptual room for any alternatives. To say that something *isn't* a certain way is just to say that it's *not the case* that it is that way. Not-A "is just defined as excluding all the cases in which A obtains".[2] It seems unintelligible to think that things neither are or are not a certain way—imagine saying that God neither exists nor does not exist. Either there is a God, or there isn't—there's no in-between! Similarly, it seems unintelligible to think that things ever *both* are and are not a certain way—imagine that there is a God *and* there isn't a God! This is nonsense.

2. Different Scopes of Truth

Now, just saying that "truth is how things are" doesn't seem to be quite inclusive enough. Truth seems to be broader than just how things *are*. If I say, "I was born", I am saying something true, even though I'm not describing how things are—I'm describing how things *were*. And the same goes if I say how things *will be*. So there seem to be five "scopes" of truth:

- *Temporal facts:* how things were, or are, or will be
- *Timeless facts:* how timeless things are
- *Modal facts:* how things could be, or could have been
- *Counterfactual facts:* how things would have been if certain things had been different
- *Normative facts:* how things should be, or should not be

Maybe there are more than these. Whatever others there are, surely truth includes them as well. Now, some of these scopes might be "empty"—maybe there are no timeless facts, or normative facts, or facts of some other given scope. But each scope is still intelligible nonetheless.

3. Global Relativism

A further question is whether truth is *absolute* or *relative*. *Global relativism* about truth (hereafter "relativism") is the view that every true proposition is true only relative to some framework.

I reject global relativism for three reasons.[3] First, it just seems wrong. It seems obvious that external reality just *is* a certain way, regardless of what anyone thinks. For example, it makes no sense to say, "God exists for you but not for me". If we're using the same concept of *God*, then either that concept describes a real thing, or it doesn't. The answer doesn't vary depending on perspective. Perhaps external reality is entirely inaccessible to us, but that doesn't mean it isn't a certain way! Second, there are some facts that seem obviously absolute. For example, ⟨1+1=2⟩, and ⟨if P is true, then P is true⟩. Third, relativism leads to a vicious infinite regress. Letting P be a proposition and F be a framework, the relativist believes the following proposition:

P is true relative to F.

But according to relativism, every true proposition is true only relative to some framework. That means that the above proposition is not a *complete* statement of the truth. To make it more complete, the relativist needs to say:

⟨P is true relative to F⟩ is true relative to F_1.

But once again, according to relativism, we *still* do not have a complete statement of the truth. The following is more complete:

⟨⟨P is true relative to F⟩ is true relative to F_1⟩ is true relative to F_2.

As you can see, this will keep going on forever, leading to an infinite regress of frameworks. But an infinite regress of frameworks is unintelligible, which means that relativism makes every truth unintelligible. In addition, we can't understand what it means for *any* of the propositions in the series to be true. In order to understand what it means for P to be true, we need to understand the framework that P is relative to. So we need to understand F. But even if we understand F, we still need to understand what it means for *P to be true relative to F*. ⟨P is true relative to F⟩ is true relative to F_1, so in order to understand ⟨P is true relative to F⟩, we also need to understand F_1. Again, this continues infinitely. The result of relativism is that in order to completely understand *any* proposition—i.e., represented by P—we need to understand infinitely many frameworks. But that is impossible for us to do. And so relativism makes it impossible to understand what it means for any proposition to be true.

One might object that all the frameworks are the same—P, P_1, P_2, etc. are all true relative to one framework, F. So the fact that ⟨P is true relative to F⟩ is *itself* true relative to F. But this seems inappropriate. For example, suppose that we have a framework, Biology, and a proposition, ⟨Cells exist⟩. Now, it might be appropriate to say that ⟨Cells exist⟩ is true relative to Biology. But

it seems inappropriate to say that the very statement, "⟨Cells exist⟩ is true relative to Biology", is itself true relative to Biology. Surely Biology does not make "meta-judgements" like this; surely such meta-judgements are reserved for a framework such as Philosophy of Biology. And it seems to me that this applies across the board; no framework can make judgements about itself.

One might object that when the relativist states that ⟨P is true⟩, they don't mean "⟨P is true⟩ relative to F". They just mean ⟨P is true⟩, not committing themselves to either relativism or absolutism. After all, when the absolutist states that ⟨P is true⟩, they don't mean "⟨P is true⟩ absolutely", but simply ⟨P is true⟩.

But this objection just seems wrong. I am an absolutist, and whenever I state that ⟨P is true⟩, I certainly *do* mean that "⟨P is true⟩ absolutely". I take care to distinguish myself as an absolutist. Plus, the objection seems irrelevant. For the critique of relativism isn't about what relativists mean when they make certain statements; it is about what their statements *imply* according to their view. So the vicious infinite regress (or the circularity) emerges regardless of whether they consciously mean for it to emerge.

4. Partial Relativism

Partial relativism is the view that some facts are absolute, but other facts are true only relative to a framework.[4] The absolutist might object to partial relativism as follows:

If the partial relativist states that ⟨P is true relative to F⟩, then the absolutist will ask whether F is true—i.e., whether F describes things as they actually are. If the partial relativist says that F is true relative to F, this doesn't answer the absolutist's question, since all they have said is that F is consistent with itself. The absolutist wasn't asking whether F is consistent with itself. The absolutist was asking whether F is *true*. If the partial relativist says that F is true relative to F1, then the absolutist will ask whether F1 is true. At some point, the absolutist might claim that we're off on another infinite regress, showing that even partial relativism makes it impossible to understand what it means for any proposition to be true.

The partial relativist might respond that the regress is only finite—at some point, we reach a framework which we can call a *fundamental framework*, beyond which there is no truth. So it is wrong to view all truth as "how things are apart from any fundamental framework", since some facts are true only relative to one of the fundamental frameworks. So for example, perhaps chairs exist according to the Ordinary Objects Framework, but chairs do not exist according to the Atomic Framework, and neither of these frameworks is absolutely true. The absolutist might ask whether some fundamental framework is absolutely true, but the partial relativist will obviously respond No; it is true only relative to itself (and any other compatible frameworks).

This appears to be consistent, and it captures my intuitions about different facts being true at different scales. So maybe partial relativism is correct. However, I wonder if my intuitions here are just the result of a language game. It might be pragmatically useful to *say* that something

exists only relative to certain scales (indeed, it makes ordinary discourse possible). It's certainly true that different entities are more relevant to us when viewing reality at different scales. But that doesn't imply that certain things *really do* exist only relative to certain scales. At the end of the day, I accept absolutism—it is simpler than partial relativism, after all.

It is sometimes important to appeal to absolutism even when talking with absolutists. Sometimes when I ask Christians a theological question that admits of a Yes/No answer, they will say something like, "Yes, but also No", or "Yes from our perspective, but No from God's perspective". At this point I ask if they believe in absolute truth. Invariably they do, and so I ask them to explain in a bit more detail what they mean by their initial answer.

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[1] Of course, this kind of precision is sometimes only available if we define our terms precisely enough.

[2] Michael Huemer, *Knowledge, Reality, and Value* (Independently published, 2021), 66-67.

[3] This section is condensed and adapted from Kane Baker, "Relativism", *Kane B* (YouTube, 2020). The final paragraph is my own, as well as the negative responses in the two previous paragraphs.

[4] The absolutist might say that a proposition is true relative to a framework, but not that it is true *only* relative to that framework. After all, the absolutist thinks that that framework is absolutely either true or false, and so that the proposition is also absolutely either true or false.

Mathematics and Logic

1. Arriving at Math and Logic

Suppose Ben has no concept of math. He is walking down a path, when he sees a rock. He picks it up and keeps walking. Later on, he sees another rock. He picks that one up too and keeps walking. He notices that he is now holding a rock in each hand. After a while, he gets tired and throws them away. But later on, he sees a brick. He picks it up and keeps walking. Later still, he sees another brick, and picks that one up too. He notices that he is holding a brick in each hand.

Noticing this pattern, Ben desires a way to describe *just* the pattern—without having to mention specific instances such as rocks or bricks. So he forms a concept to describe having an object in his hand. Second, he forms a concept to describe having an object in each hand. Third, he forms a concept of linking separate things together. Fourth, he forms a concept of "is the same as". When he gets home, he scribbles down symbols for each of these concepts: "1" for having an object in his hand, "2" for having an object in each hand, "+" for linking separate things together, and "=" for the concept of "is the same as". Finally, he can scribble down a series of symbols that describes the pattern he observed:

$$1 + 1 = 2$$

Notice that he hasn't proven that this pattern *always* holds. He has only observed it twice. Maybe he will eventually observe an exception to the pattern. But as he thinks about it, he can't even imagine the pattern's being broken. Perhaps he can *utter the words*, "1+1=2 sometimes doesn't hold", but he can't actually conceive of a situation where 1+1=2 doesn't hold. It just doesn't make any sense.[1] And so he believes that 1+1=2 always holds, and so he treats it as a *law*.

From here, he can keep observing new patterns and adding new concepts and symbols as he needs. But once he has enough concepts and symbols, he can, if he so chooses, stop worrying about observation and just start operating on the concepts and symbols. Using the laws that he has built, he can construct ever more complex concepts—multiplication, exponentiation, differentiation, integration, and beyond. It is sort of like a long, complex game in which the "legal moves" are dictated by previous conclusions. He can continue as far as he wants, so long as he plays by the rules. He can also go in the other direction: he can try to come up with simpler, more fundamental axioms, from which "1+1=2" can be proven. Of course, there will have to be a stopping point—eventually he will reach an axiom, or set of axioms, that are not proven by more fundamental propositions but are merely held as basic and foundational. He holds these because they are both self-evident and invariably confirmed by his observations.

It seems to me that this is not relevantly different from how humans started doing math: by observing instances and abstracting out general patterns. The same goes for logic: imagine a parallel story that uses "$p \vee q, \sim p \vdash q$" instead of "1+1=2", and you get a parallel result.

2. Discovery versus Invention

Do humans discover math and logic, or do we merely invent them? In other words, are the concepts and laws of math and logic true independent of humans? Are they just "out there", waiting to be discovered by humans? Or do we construct them ourselves? Well, if we define *math* and *logic* simply as different ways that reality behaves, then it seems they are discovered, since we simply observe the different ways that reality behaves. But this doesn't seem like a good definition. On the other hand, if we define math and logic simply as the written symbols that humans use, then math and logic are obviously invented, since we constructed those symbols ourselves. But this also doesn't seem like a good definition.

It seems that the best definitions for math and logic are *systems of certain abstract concepts and propositions*. Math is the system of concepts including numbers, their interrelations, and operations that can be performed on them, as well as certain equations and inequalities that are taken to be true (e.g., "$1/n$ converges toward zero as n increases without bound"). Logic is the system of concepts including truth, propositions, validity, inference, and so on, as well as certain propositions that are, at least in some version of logic, taken to be true (e.g., $p \vee q$, $\sim p \vdash q$). On these definitions, whether math and logic are invented or discovered hinges on whether these abstract concepts and propositions are invented or discovered.

There are at least three answers to this. The first, associated with modern-day *platonism*, is that such concepts exist external to any minds—they are fundamental facts just as real as physical objects. In this case, math and logic are discovered. (The same would go for *divine conceptualism*, the view that such concepts exist in the mind of God.) The second, which might be associated with *psychologism*, is that there are no mind-independent concepts: concepts are only created and situated in individual human minds; in this case, math and logic seem to be invented.[2] The third, *anti-realism*, is that such concepts do not exist, and so in a very strict, literal sense, math and logic are *neither* invented nor discovered, since they do not exist.[3]

However, in a more ordinary and useful sense, it seems that mathematicians and logicians are *sometimes* inventing and *sometimes* discovering. Ben discovered the pattern with the rocks and the bricks, but he invented the concepts he used to describe that pattern. The concepts were not "out there waiting to be discovered" any more than the telephone was out there waiting to be discovered by Alexander Graham Bell. The mere fact that a concept is not a physical object doesn't mean that it was already out there waiting to be discovered. For example, take my newly created concept of a Chistruid—an animal with the head of a chimp, the neck of an ostrich, and the body of a squid. Assuming nobody has come up with that concept before, it seems that I *invented* it. I didn't observe it; I actively put it together in my mind. Just as Bell constructed the telephone out of physical parts, I constructed the Chistruid out of conceptual parts.[4]

On the other hand, once enough rules are laid down, finding propositions that are consequences of those rules is clearly a process of discovery. For example, mathematicians previously did not know how to express 33 as a sum of three cubes of integers. But in 2019, the mathematician

Andrew Booker found a way to do it.[5] This was clearly a discovery: that particular way to express 33 was "already there", so to speak, because it was already a consequence of traditional mathematics. But Booker discovered that consequence. He didn't just make it up. He wasn't the one who made it true. It was already true before he found it. This is the case even if traditional mathematics itself was invented by previous mathematicians. So it seems clear that discovery can happen within an invented system. I can invent a variant of chess and then discover different ways that the game could end.

3. The Necessity of Mathematics and Logic

Could mathematics and logic be any other way? Could God create a world in which 1+1=3? It seems this question can be understood in three ways. First, if one is asking whether there could be a world in which humans, for whatever reason, used different symbols than we actually use—i.e., they used '3' to mean what we mean when we use '2'—then the answer is obviously Yes.

Second, if one is asking whether humans might have different logical and mathematical concepts and systems than the ones we actually do, then the answer is obviously Yes—we *already have* a plurality of logical and mathematical systems—classical logic, fuzzy logic, dialetheism, paraconsistent mathematics, and so on; surely we will continue to come up with more systems, and surely we could have come up with a different set of systems than we actually came up with.

Third, if one is asking whether mathematical and logical facts could have been *false*—e.g., whether there could be a world in which 1+1=3 according to the way *we* understand the concepts, then the answer is obviously No. Such a world would be absurd. In such a world, if Ben doesn't have any rocks, and then picks up a rock, and then picks up another rock, then Ben would as a result have picked up three rocks. And this would apply across the board: *any* time there is an object and then another object, together they would make three objects. This is conceptually absurd. So it seems that God *couldn't* create a world where math and logic are different in this way. This isn't because God lacks any sort of power that God might have possessed, or because the laws of logic are these towering forces that exert power over God, but simply because it would be absurd and make no sense for God to, for example, make it the case that I both exist and do not exist at the same time.

4. God as the Source of Mathematics and Logic

Given what I have said so far, it seems wrong to say that mathematical and logical facts "come from God", even though it is common for theists to say this. For example, Karin and Darius Viet say, "The very nature of God—unchanging, universal, and immaterial—is the source of the laws of logic".[6]

There are two problems with this. The first is that the mere fact that God is unchanging, universal (I'm not sure what they mean by "universal"), and immaterial provides no reason to think that God is the *source* of the laws of logic. The laws of logic are *themselves* unchanging, universal,

and immaterial, so why should we think they have any source at all? They seem to be the type of thing that would *not* have a source. One might say that God is the only being who is perfectly logical, rational, and consistent. But how does this help? The mere fact that God does the best at following the logical laws does not mean that God is the *source* of the logical laws!

The second problem is that literally *anything* entails mathematical concepts and logical facts. If *any* object exists, regardless of whether it is God or not, then there is at least *one* object. *One* is a mathematical concept. If *any* object exists, then it's false that that object doesn't exist. This is the logical law of *double negation*. The same goes for nothing. If *nothing* exists, then there are zero objects. *Zero* is a mathematical concept. So it seems quite clear that math and logic are the sorts of things that are independent of any being; math and logic hold regardless of whether God or anything else exists. So it seems wrong to say that math and logic "come from" God if we mean that something unique about God generates mathematical and logical facts, or that atheism makes it impossible for there to be mathematical and logical facts.

And so it seems wrong to say that logic or mathematics are evidence for God merely because they are "unchanging, universal, and immaterial". The atheist can either be a platonist, or else simply say that logic is a human representation of accurate inferences.

5. Deduction versus Induction

Put simply, *deduction* is reasoning from laws. For example, suppose I know that (1) my dad is not at the house, and (2) if my dad is not at the house, then my dad is at work. Using the law of *modus ponens*, I might *deductively* infer that (3) my dad is at work. That's how modus ponens operates: if A is true, and A implies B, then B is also true.

By contrast, *induction* is reasoning from instances. For example, suppose I touch a hot stove three times, and all three times, it hurts. From these three instances, I might *inductively* infer that *in the future*, every time I touch a hot stove, it will hurt.

Induction is widely recognized to be only *partially* reliable; if the premises of an inductive argument are true, that doesn't guarantee the truth of the conclusion, but merely makes it more likely. There are exceptions, of course: the next time I touch a hot stove, I might be drugged so hard that it *doesn't* hurt. Of course, one can make their conclusion more specific—"every time I touch a hot stove while *not* drugged, it will hurt"—but there still may be exceptions, and the more specific one's conclusion is, the less useful it is, since it applies to fewer and fewer cases.

On the other hand, certain laws of deduction—such as modus ponens—are widely believed to be *certain*: if the premises of a deductively valid argument are true, that guarantees the truth of the conclusion. Now, of course, certainty depends on the person, and there are at least some people who are not certain of modus ponens or other classical laws. In addition, one of the reasons that I personally find classical laws so obvious is that they are constantly confirmed by observations, both in everyday experience and in any sort of thought experiment, whereas some alternative

laws of logic are contradicted by observations. But that means I am using induction to justify belief in deductive laws. So it seems that all of my beliefs are ultimately based on basic intuitions, sense experiences, and induction.

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[1] Some people say that they can conceive of geometrically incoherent things such as square circles. But this seems wrong. I imagine that they are visualizing either (1) a square and a circle overlaid on top of each other, (2) an image that flashes between a square and a circle, or (3) a square with rounded corners. Obviously, none of these is a square circle. A square circle is impossible to conceive of because it is geometrically incoherent. You can say the words "square circle", but you cannot actually visualize one, so it seems to me. And so it goes for any contradiction.

[2] See Martin Kusch, "Psychologism", *Stanford Encyclopedia of Philosophy* (2020).

[3] See Bandy, "Abstract Objects" and William Lane Craig, *God Over All: Divine Aseity and the Challenge of Platonism* (Oxford University Press, 2016).

[4] One might object that I only discovered the Chistruid because the *possibility* of the Chistruid was already out there—it was possible to conceptually put three different animals together in that way. But this applies to literally anything, and so this objection implies that *nothing* is invented. On this reasoning, Bell didn't invent the telephone because it was already possible for someone to construct it. Not even God invents anything, since for anything God thinks of, it was already *possible* for that thing to be thought of! If you want to use the English language that way, then that's fine, but I would rather the word *invention* be at least somewhat useful.

[5] $33 = (8866128975287528)^3 + (-8778405442862239)^3 + (-2736111468807040)^3$

[6] Darius Viet and Karin Viet, "Are the Laws of Logic Really Laws?", *Answers in Genesis* (2011).

Concepts

1. Concepts

A *concept* of some thing X is the set of all the properties that X has. One might say that the concept of an apple is the set of the properties *being round*, *being a fruit*, *being of a tree*, and *being in the rose family*. According to this concept, anything that has those four properties is an apple, and anything that does not have all four of those properties is not an apple.

There are multiple problems with this. The first is that some properties are vague. *Being round* is vague. Exactly what shape or shapes must something have to count as *round*? There is no precise answer. But if one of the properties in the concept of an apple is vague, then the concept of an apple is itself vague. But then there might be cases where it is neither true nor false that a given thing is an apple. This breaks the law of excluded middle.

The second problem is that there appear to be obvious exceptions to the above concept of an apple. If I clamp a cubic box around an apple bud and cause the resultant fruit to grow into a cube instead of a round shape, then I have a non-round apple, which generates a contradiction: the fruit is cubic, so it is not round; but it is an apple, so it *is* round, because the concept of an apple requires that all apples are round. This breaks the law of non-contradiction.

The third problem is that, for any concept of an apple we might come up with, someone could come up with a slightly different concept that is equally good. One could add the specification that an apple must be some shade of red, yellow, orange, or green. One could add that an apple must have had a stem. One could remove the property of *being round* to allow for cubic apples, or one could remove the property of *being of a tree* to allow for apples grown in a lab. There doesn't seem to be a "one true concept" of an apple. Any concept we might choose is arbitrary.

And of course, these three problems are not unique to apples. They apply to *any* concepts of *anything*. Something is very wrong if using concepts in such a basic, intuitive way breaks *two* foundational laws of logic and also suffers from extreme arbitrarity. What to do?

One might insist on *precise concepts*. One might insist that the concept of an apple is a *precise* set of properties, each of which is not vague in any way. But this does not address the third problem—the problem of arbitrarity. Again, exactly which shape or shapes can an apple have? An apple cannot be the size of a quark, nor can it be the size of Sagittarius A (~11 billion miles across). So what are the *exact* size limits of an apple? Any answer would be intolerably arbitrary.

So it seems we must say that concepts are *purely conventional*. There is no "one true concept" of an apple, or of anything else. There is, presumably, an external world containing objects and stuff of different sorts, and we *mentally construct* concepts in order to systematize these objects and stuff and thereby make sense of the external world.

2. Instantiation

Some concepts, of course, actually describe things in reality, whereas others do not. For example, consider the concept consisting of the following two properties: *being conscious* and *being able to make decisions*. There are things in reality that have both of those properties. Let's call such things 'Conscious Decision-Makers' (CDMs). I take myself to be a CDM. Since at least one CDM exists, the concept of a CDM is *instantiated* in reality. There's not only the concept—there's also an object that *instantiates* that concept.

On the other hand, consider the concept of a *winged horse*. Let this concept consist of the following two properties: *being winged* and *being a horse*. There are no things in reality that have both of those properties. No winged horses exist. Therefore, the concept of a winged horse is not instantiated. There is only the concept. The concept does not describe anything.

To put it formally: a concept C is instantiated iff there exists some thing that bears all the properties that are members of C. More specifically, some thing X instantiates concept C iff X bears all the properties that are members of C.

Notice, then, that a concept *cannot* say whether something exists. A concept cannot say of itself whether it is instantiated. A concept is merely a set of properties that *might* happen to correspond to something in reality. A concept describes what a thing *would be like* if that thing *were* to exist. Whether that thing *does* exist and thereby instantiates that concept is a separate question.

For this reason, any putative properties entailing *existence* cannot be part of a concept. A concept cannot have *existence* as one of its properties. Otherwise, you could have a concept of an *existent unicorn*, which is incoherent. (If such a concept were coherent, then it would be incoherent to say that such a concept was *not* instantiated. Saying "existent unicorns do not exist" would be to say "there are unicorns that exist and do not exist". But, of course, it cannot incoherent to simply say that a given thing doesn't exist.) Similarly, *necessity* cannot be part of a concept, since necessity implies existence. One cannot say, for example, that the concept of God includes necessity, since that would be to beg the question as to whether God exists. (Theists typically use *conditional necessity* instead, which is simply to say that *if God exists*, God is necessary.)

Language

1. Phenomena

Our only connection to reality is through mental phenomena or *qualia*, which are everything that we directly experience: sights, sounds, tastes, smells, tactile sensations, emotions, consciousness, intuitions, and so on. Anything that you *directly* experience is a quale. So we do not directly experience ordinary objects like tables or chairs. We do not directly experience photons hitting our retinas. We do not even directly experience electrical signals in the brain. Rather, what we directly experience are the *qualia*: internal, private, first-person sensations and feelings.[1]

2. Postulation

On the basis of phenomena, we *postulate* the existence of certain things. If I experience what appears to be a table, then I might *postulate* the existence of a table. Notice that this this is *not* a direct observation. It goes beyond direct observation, beyond the qualia. It is a postulation about the nature of reality—reality *as it truly is*, independent of our observations. Reality contains an object that at least partially explains why I have the experience of an appearance of a table. We can do this with ourselves as well; we might postulate the existence of a *soul* that generates our consciousness and our qualia. Again, in this case, the soul is not directly observed; it is postulated as an object in reality.

3. Naming

For practical purposes, we give *names* to these postulated objects. A name is a *word*, which can be expressed through written symbols, phonemes, hand signs, and so on. A word doesn't have an *intrinsic* meaning. A collection of ink scribbles doesn't *intrinsically* point to something in reality. Rather, we collectively and individually *decide* the meanings of words, by simply using them to refer to things. If we change the way we use certain words, then the meanings of those words change. There is no "one true dictionary" declaring what every word in every language means.

4. Definitions

A *definition* is a linguistic item that is substitutable for its *term*, which is shorter linguistic item. A definition helps you understand its term. For example, consider 'frozen water' and 'ice'. These two linguistic items are intersubstitutable, the former is shorter than the latter, and the former helps you understand the latter. Therefore, 'ice' is a term, and 'frozen water' is its definition.

Thus, it is false to say things such as, "God is the *definition* of goodness". Definitions are linguistic items. God is not a linguistic item; therefore God is not the definition of 'goodness' or of anything else. Similarly, statements such as "plants have cellulose walls *by definition*" should be understood as shorthand: given that we've included '…that has cellulose walls' as part of the definition of 'plant', plants always have cellulose walls.

5. Primitive Terms

A *primitive term* is a term that has no definition. For example, I take the word 'good' to be a primitive term—there is no linguistic term that is substitutable for 'good' *and* that helps you understand the word. Primitive terms are purely conventionally chosen. For example, recall from science class that electrons have negative charge and protons have positive charge. What are the definitions of 'negative' and 'positive'? None. These terms are primitive and purely conventional. Sure, they are opposites of each other, but there is nothing deeper to discover about what a negative charge is that explains why we say that an electron's charge is "negative" instead of "positive". It could easily have been the other way around; it makes no difference.

6. Communication

Communication is the exchange of information or ideas.[2] Communication can be primitive or complex. Facial expressions, body language, and shrieks of pain are primitive modes of communication, albeit often involuntary. A more voluntary mode of communication is *language*, which is communication via words.

For example, I can point to what appears as a table, and say, "That is a table". Someone else can respond, "I understand. That is a table". Perhaps they initially weren't sure what it was, but now they know, based on a concept of *table* that they already possessed. Or perhaps they just didn't have a name for what they were seeing, but now they do. This, intuitively, is communication—we have exchanged ideas. I pointed out an object and provided a name for it, and they informed me that they understood.

7. Reference

1. Referring to the Same Thing

There seem to be three problems surrounding reference. The first is the question of whether I and the other person are actually referring to the same thing when we each say "That is a table". What if the person was referring to some object *behind* the table that I was referring to? Again, there are skeptical challenges here, but setting those aside, it seems that in many cases, the two people are mentally and linguistically equipped enough to sort out the problem and agree on which object they are both referring to.

2. Non-Existent Ordinary Objects

The second is the question of whether ordinary objects exist at all. I argue that they do not.[3] In this case, neither I nor the other person is referring to a table, because there simply is no table. And so we must ask what, exactly, we *are* referring to? Certainly not a specific collection of fundamental particles, since those are not part of our phenomena—we don't consciously

experience the individual particles, but rather a single image of the table; in addition, there isn't an exactly specific collection of particles that produces the image of the table and nothing else.

Perhaps the most reasonable answer here is to say that we are each referring vaguely to "whatever exists in the external world that produces my image of the table".[4, 5]

3. Reference in General

The third is the question of whether we can refer to *anything*. Do we actually think and talk *about* things in the external world? Or is that an illusion—are we really just interpreting first-person sensations, feelings, and concepts, and merely thinking and talking about those? For example, I have a particular conception of my mother. But when I consider this conception, am I actually thinking *about my mother*, or am I really just thinking about my own personal conception of her, a conception formed by my own mental processes? If the latter is always true, then *no one* actually refers to or thinks about God, let alone any other external thing.

Two clarifications: (1) Non-reference views do *not* entail that there is no external world. There might be objects out there, but we can never refer to them. (2) Non-reference views do *not* entail that terms such as *God* translate to "my conception of God". They might still defined the same way as on reference views, but the non-reference theorist will simply say that they aren't referring to anything.

That might sound alarming, but one might think that it is not such a huge deal. We already accept that we view reality through an extremely limited and often unreliable set of cognitive and sensory faculties. Ordinary objects such as tables and chairs appear solid, but they are not: they are a bunch of whirling particles in empty space, and those "particles" themselves might be more like "clouds of probabilities", as Kane Baker puts it.

Plus, we already accept that our senses don't *directly* interact with the external world. When I see a table in front of me, I'm not directly interacting with the table—I am having a sensation of various colors produced by my brain when it interpreted photons that have been traveling through space since striking the table. (At least, that's what science says is happening.) If our sensory faculties cannot interact directly with the external world, why think that our cognitive faculties are any better?

The non-reference theorist might say that what really matters is that our *conceptions* match up with the real things, or at least match up well enough. One might ask how, on non-reference views, we'd ever be able to *know* whether our conceptions match up with the real things, but it seems to me that the same problem equally plagues reference views. A more pragmatic non-reference theorist might say that what really matters is just that our conceptions are *useful* to us —they allow us to live meaningful lives, participate in loving relationships, pursue rational inquiry, and so on—or at least for it to seem as if we are doing those things. But of course, the same might be said by the more postmodern reference theorist.

I am not sure that non-reference views can be disproven. But I can register two of my intuitions against it. First, it just seems false. When I think about my mother, it is true that I am considering a *conception* of her that might not be completely accurate, but I take that conception to be *pointing* to the real thing—to *her*. I take myself to be thinking *about* my actual mother by way of that conception.[6]

Second, it seems that non-reference views are self-defeating. Consider the sentence, "It is false that there is reference to anything in the external world". Is it true or false? If it's true, then it disproves itself, since *it* refers to "anything in the external world". If it's false, then by double negation, there *is* reference to things in the external world. This problem appears to have the same form as the incompleteness paradox.[7] I don't see how non-reference views can escape this.

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[1] The language of 'private' is from Joshua Rasmussen.

[2] This definition is inspired by the New Oxford American Dictionary.

[3] See Bandy, "Physical Objects".

[4] This answer is inspired by Dustin Crummett.

[5] For thoughts on reference in relation to God, see Bandy, "Referring to God".

[6] I would say that the terms for this "aboutness"—reference, intentionality, directedness, pointing, picking out, etc.—all mean the same thing, and that they are all primitive. Just as I take existence, influence, and truth to be primitive concepts, I also take reference to be a primitive concept—i.e., a concept that cannot be defined using more primitive terms and so must instead be defined using examples.

[7] See Bandy, "The Incompleteness Paradox".

Circularity

Circularity is the property of having a circle or a loop. A *loop* is a set of items where you can start on an item in the set, move to a *prior* item in the set, and keep doing so until you go through all the items and then reach the item you started with.[1] The *prior* relation must be the same throughout the whole process—i.e., it must always be *temporally prior*, or *theoretically prior*, or *explanatorily prior*, etc. Below I describe and evaluate some types of circularity.

1. Theoretical Circularity

Theoretical circularity is a property of a *theory* where you can start with one of its beliefs, then move to the belief that it is based on, and then move to the belief that *that* belief is based on, and so on until you reach the original belief. Below are three examples of theoretical loops:

1. You ask Frank why he believes that the Bible is the Word of God. He responds, "Because it says so!" You then ask him why he believes that the Bible is reliable. He responds, "Because it's the Word of God!"
2. You ask Frank why he believes that the Gospel of John was written after the Gospel of Mark. He responds, "Because John contains more modern Greek and more modern theology than Mark". You then ask him why he believes that John's theology is more modern than Mark's. He responds, "Because John was written later than Mark!"
3. You ask Frank why he believes that Emma is reliable. He responds, "Because Cate told me so". You then ask Frank why he believes that Cate is reliable. Frank responds, "Because she correctly told me that school was canceled". You then ask Frank why he believes that school was canceled. He responds, "Because Emma told me so!"

In each of these cases, Frank is basing his beliefs on each other in a way that creates a loop. Note that not all the beliefs in a loop need to be *solely* based on other beliefs in the loop. The idea that John contains more modern Greek is not part of Frank's loop—it's just extra information. But there is still a loop of beliefs that are *at least partially* based on each other. In addition, note that Frank doesn't have to consciously hold all of his beliefs in his head at once—he might even be making up answers on the spot—but the loop still emerges as a logical implication of his beliefs.

In all three cases, it seems that Frank making some sort of error. It seems to me that at least *some* of Frank's beliefs should be based on external *evidence*, rather than all his beliefs simply being based on each other. After all, one could form a loop to get away with *any* crazy belief—you could believe that the earth is flat because Pygmy told you so, and that Pygmy is correct because Pygmy accurately reported that the earth is flat. It's like locking your keys in your car—you need to get in your car to get your keys, but you need to get your keys to get in your car. It seems to me that you can't get to *either* of them unless you have an *independent* tool such as a car locksmith. So whatever method of forming beliefs we *do* adopt, it seems that we should try to avoid theoretical circularity. If there is really a way to reach the truth and be justified about it, surely a theoretical loop is not that way.

Logical equivalence within a theory is when a set of beliefs imply each other. For example, the belief that *x* is smaller than *y* implies that *y* is larger than *x*, and the belief that *y* is larger than *x* implies that *x* is smaller than *y*. But it is not theoretically *circular* to hold these two beliefs. To be theoretically circular, those two beliefs would have to be *based on* each other—your belief that *x* is smaller than *y* would have to be *based on* your belief that *y* is larger than *x*, which itself would have to be based on your belief that *x* is smaller than *y*. Similarly, someone might tell a theist: "Your belief in God is based on your belief in morality. But morality comes from God! So your beliefs are circular!" But this person would be mistaken—a belief system is theoretically circular only if multiple beliefs are *based on each other* in a way that forms a loop.[2]

2. Begging the Question

Begging the question, or *logical circularity*, is when an argument's conclusion is identical to one of the premises.

1. The Bible is God's inerrant Word.
2. If the Bible is God's inerrant Word, then Jesus was raised from the dead.
3. If Jesus was raised from the dead, then anything Jesus said is true.
4. If anything Jesus said is true, then the Bible is God's inerrant Word.
5. Therefore, the Bible is God's inerrant Word.

Is this argument *rationally persuasive*? That is, would it be rational to change one's mind when presented with this argument? Suppose I present this argument to a person who does not already accept the conclusion (5).[3] Now, notice that (5) and (1) are identical. So if the person does not accept (5), then they *also* do not accept (1). So this argument does little more than assert the conclusion twice. Clearly, such an argument is not rationally persuasive; it would be an epistemic error to be persuaded by it. It is an error to believe in a view simply because someone asserts that view (without independent evidence for the asserter's reliability). By the same token, it is a dialectical error to present such an argument in hopes of persuading someone.

More generally, a statement is question-begging when it used to convince a person of a view, but when that person already disagrees with the statement. For example, if I'm talking with an atheist, and I argue that the Bible is God's Word by citing Jesus's resurrection, this begs the question against the atheist, since they already *don't* believe in Jesus's resurrection. But notice that a given statement can be question-begging in one context but appropriate in another context. For example, if the atheist tries to persuade me against biblical inspiration, and they cite the view that Jesus's resurrection was merely legendary, it is appropriate for me to respond that I *don't* believe that Jesus's resurrection was merely legendary. In this case, I am not begging the question, since I'm not trying to convince the atheist of anything; I am merely responding to *their* argument. Of course, if the atheist provides evidence that Jesus's resurrection was merely legendary, then I should engage with that evidence; otherwise I'm being close-minded.

3. Circular Definitions

A *circular definition* is a definition that includes the concept being defined. For example, if I define 'woman' as 'a person who identifies as a woman',[4] then I have given a circular definition of 'woman'. A series of definitions can be circular if they form a loop. For example, the 2007 Merriam-Webster dictionary defines 'hill' as 'a usually rounded natural elevation of land lower than a mountain' and 'mountain' as 'a landmass that projects conspicuously above its surroundings and is higher than a hill'.[5]

Surely circular "definitions" are not genuine definitions, since they use previously empty terms that require independent clarifying information. From the definitions above, I don't know what a *woman* is because I previously didn't know what it meant to "identify as a woman",[6] and I have no idea how high a hill or a mountain is.

A *recursive definition* defines a term in multiple related senses using iterations. For example, *my ancestors* can be defined as "my parents and the parents of my ancestors". Although this looks circular because the term *my ancestors* is part of the definition, that term is really just an abbreviation for anyone who has *already been included* in my ancestors. So we ignore that at first and look at the first half of the definition. From that, we can include my parents as members of my ancestors. And since my parents are my ancestors, then my *grandparents* are the parents of my ancestors, which means my grandparents are also included in my ancestors. We can continue like this, adding more and more people, until we reach a point where the concept of *parent* no longer applies. Once we reach that point, we have defined the entire set of my ancestors. (Of course, in some cases this process goes on forever, and so some recursive definitions refer to infinitely many things.)[7] So a recursive definition is actually not a circular definition.

4. Epistemic Circularity

According to Andrew Moon, your belief ⟨Your cognitive faculties are reliable⟩ is *epistemically circular* if you use your cognitive faculties to come to believe that ⟨Your cognitive faculties are reliable⟩.[8] Of course, you can replace "Your cognitive faculties" with any belief source—your memory, your senses, your intuitions, etc. The important question, of course, is whether the presence of epistemic circularity should lead us to doubt any of our beliefs.

Addressing this question is beyond my current interests, so I will simply refer the reader to Moon's article (see note 7 below). In any case, it seems obvious that it is *impossible* to avoid epistemic circularity. For any belief that we come to, we come to it *using* our cognitive faculties. If we think those faculties are generally unreliable, then it seems we have good reason to doubt *all* of our beliefs. On the other hand, if we think those faculties are generally reliable, then it seems we are justified in trusting at least some of our beliefs—perhaps the beliefs that seem most obviously true—and using those as a basis for other beliefs. It seems to me that the best way to proceed is simply to assume that our faculties are reliable, since that at least gives us a *shot* at getting to the truth.

5. Explanatory Circularity

Explanatory circularity obtains when there is an *explanatory loop*, which is when things influence each other in a loop, or it so happens that "A is because of B, which is because of C, which is because of D, (etc.)… which is because of A". For example, suppose God looks into the future and sees that I will donate to charity. Because God sees that, he does a convicting work in my heart. Because of that convicting work, I eventually donate to charity—and that act is the very act God originally saw when looking into the future. If we accept that God's work influenced my act, which influenced God's knowledge, which influenced God's work, then we have an explanatory loop.

It seems to me that there are no explanatory loops. First, I have never observed an explanatory loop or seen even the slightest reason to posit one in any circumstance. Second, it seems that influence is *transitive*—i.e., if *x* influences *y*, and *y* influences *z*, then *x* (indirectly) influences *z*. But if this is right, then in a loop, every member ends up influencing *itself*! In the charity example above, since God's work influenced my act, which influenced God's knowledge, which influenced God's work, then God's work influenced itself! But this seems impossible.

One might say that theoretical circularity generates explanatory circularity. For example:

- Frank believes *x* because Frank believes *y*.
- Frank believes *y* because Frank believes *x*.

One might say that this is an explanatory loop: A is because of B, and B is because of A. But it seems we can avoid this by considering *when* each of these beliefs occurred. Perhaps Frank believed *x* on Jan 3, 2023 because he believed *y* on Jan 2, 2023. And perhaps Frank believed *y* on Jan 2, 2023 because he believed *x* on Jan 1, 2023. In this case, there is theoretical circularity but no explanatory circularity. It seems clear to me that any apparent explanatory circularity is only apparent, and can be avoided once we consider *when* people have their beliefs.

6. Time Loops

Time loops have been conceived in multiple ways, perhaps most commonly as explanatory loops that involve backwards time travel. For example, if I go back in time and hook up my parents, then my hookup act influences their marriage, which influenced my birth, which influenced (in some distant way) my hookup act.

Another common conception is what I call a *reset loop*, featured in movies such as *Groundhog Day* and *Edge of Tomorrow*. In a reset loop, the progress of the universe stops abruptly and resets back to an earlier moment. In *Groundhog Day*, February 2 repeats over and over again. In *Edge of Tomorrow*, whenever Tom Cruise dies, the universe's progress resets back to an earlier moment. In addition, in both of these movies, it's not true that the *entire* universe resets, because the protagonist's memories are not reset—they are retained and so continue to develop.

It seems to me that these are not really *time loops*, strictly speaking. A genuine time loop would be a situation in which the entire timeline is *itself* a loop (as opposed to a segment, ray, or line).[9] For example, imagine that 2023 is the only year that ever occurs. After December 31, 2023, time continues into January 1, 2023. This isn't an *infinite* loop—there are only 365 days in the loop, so it is finitely long. And there need not be some hard "reset" after December 31—events could play out smoothly so that things seamlessly "return" to how they are on January 1. On a genuine time loop, the notions of *before* and *after* are no longer exclusive. For example, Dec 31 happens after Jan 1—obviously. But as we just saw, Jan 1 happens immediately after Dec 31! Therefore Jan 1 is both *before* and *after* Dec 31. Moreover, it seems that Jan 1 is both before and after itself.

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[1] My formal definition of a *loop* is a set of cardinality N $[i_1, i_2, i_3, \ldots i_N]$ for which both of the following are true:

- $R(i_n, i_{n+1})$ for $1 \leq n < N$
- $R(i_N, i_1)$

where $R(x, y) \coloneqq \langle x$ is prior in some way to $y\rangle$.

[2] In particular, the person mistakenly thinks that a loop can be made up of a multiple types of relations—in this case, belief-basing and explanatory priority. But this is wrong; the relations within a loop must all be the same (or at least in the same category) for it to count as a loop.

[3] That is, this person rejects or is undecided about (3). Alternatively, they *have never considered* (3). In this case, the argument makes them aware of (3). But as soon as someone is aware of a view, they automatically accept it, reject it, or are undecided about it. If they somehow accept the view just upon hearing it, they are making an epistemic error.

[4] This definition is from Patrick Grzanka.

[5] Thanks to the Wikipedia article "Circular definition" for this example.

[6] As Matt Walsh (in)famously asked Grzanka, "But what are they identifying *as*?"

[7] I owe the idea of recursive definitions, as well as the ancestor example, to Tim McGrew.

[8] This is adapted from a quote in Andrew Moon, "Circular and Question-Begging Responses to Religious Disagreement and Debunking Arguments", *Philosophical Studies* 178.3 (2021): 785-809.

[9] Or at least one timeline is a loop, if there are multiple timelines.

Real-World Paradoxes

Classical logic is governed by three fundamental laws:

1. *The law of identity*: Everything is identical with itself.
2. *The law of excluded middle*: Every proposition is either true or false.
3. *The law of non-contradiction*: No proposition is both true and not true.

In this and the next essay, I address five types of objections to the law of non-contradiction.

1. Vagueness Paradoxes

One might say that vague situations create contradictions. For example, imagine a child approaching adulthood. Is there a specific moment of time—e.g., a specific nanosecond—at which they suddenly are no longer a child? Surely not. Therefore it is better to say that there are some moments at which they both *are* and *are not* a child.[1]

This does not persuade. First of all, if the problem is that there are arbitrary boundaries (between childhood and non-childhood), positing a contradiction doesn't solve this at all, since now there are arbitrary boundaries between *only* being a child and being *both* a child and not a child. Second of all, if we nail down a precise definition, there is no contradiction. For example, if a *child* is defined as a person who is younger than eighteen, then a person ceases to be a child at the exact moment they turn eighteen. But even if we use a vague definition of *child*, why would it be better to say that there are some moments at which a person *both* is and is not a child? It seems better to just say that each person *either* is or is not a child, but not both.

Moreover, one might think that there *isn't* any vagueness, that everything is instead *precise*. This might mean that every term, like *child* or *adult*, actually has a precise definition, even if we don't know what it is. Or it might mean that the only things that exist are simple things, such as particles and souls. In the latter case, concepts such as *child* and *adult* are simply conventional and not reflective of how the external world really is.

(Essay continues.)

2. Motion Paradoxes

2.1. Hegel's Motion Paradox

One might say that motion involves a contradiction. If an object is in motion, that means it is not in a single place. So if an object is in motion, then at each moment of time, the object is at the location that it is currently at, and it is also at the location that it is *about to be at*. But if it is at the location that it is about to be at, that means it is *not* at the location that it is currently at. Therefore an object in motion both *is* and *is not* located where it is currently at.[2]

This does not persuade, since we can instead say that an object is in motion if it is in a different location at different moments *over a period of time*. So motion is measured *over a period of time*, not at a single moment. At a given moment, an object is in *only one* location. And perhaps its momentum *at that moment* explains why it is in a different location at a later moment.

2.2. Zeno's Motion Paradox

Suppose I am trying to travel some distance. In order to do so, I must first travel *half* of that distance. But in order to do that, I must first travel a *quarter* of the distance. But in order to do that, I must first travel an *eighth* of the distance. And so on, infinitely. And so it seems that any sort of motion requires traversing *infinitely many* finite distances, which is impossible. But motion *is* possible. So motion both is and is not possible.

This does not persuade. If motion is *discrete*—i.e., it happens in finite increments similar to the frames of a movie—then motion does *not* require traversing infinitely many finite distances. It only requires traversing *finitely many* distances. When something moves, it repeatedly jumps by a finite number of finite distances that are so small that motion *appears* continuous.

But if motion is *continuous*—i.e., the moments of time map onto the real numbers—then why think that traversing infinitely many finite distances is impossible? It's not as if their sum is infinitely long; their sum is only finitely long. What is the problem?

One might say that, if time is continuous, there is no *first* distance to be traversed, since before any given distance can be traversed, a *smaller* distance must first be traversed. But why must there be a first? If time is continuous, then any sort of motion *naturally* involves traversing a beginningless set of distances, just as the horizontal line segment created by the function [$y = 1$, $0 \leq x \leq 1$] spans from (0, 1) to (1, 1) even though there is no *first* finite distance that it spans. If the continuous-time theorist is troubled by this, then they can simply reject that these "distances" exist and simply hold that only the individual, instantaneous *moments* of time exist.

(Essay continues.)

3. Legal Paradoxes

One might say that inconsistent laws generate a contradiction. Suppose that two laws are passed:

1. All homeowners are permitted to vote.
2. No females are permitted to vote.

Now suppose that the following sentence is true:

3. Shelley is a female homeowner.

According to (1), Shelley is permitted to vote; but according to (2), Shelley is not permitted to vote. Contradiction.

There is a contradiction only if we believe two things: (i) that (human) laws have real normative status and thus can generate *permissions* and *prohibitions* for persons, and (ii) that these permissions and prohibitions are *exceptionless*—that they hold in all cases, even when doing so generates a contradiction. If we reject that laws have real normative status, then (1) and (2) are false; rather, "All homeowners are permitted to vote *according to the law*" and "No females are permitted to vote *according to the law*". These revised propositions do not, when conjoined with (3), generate a contradiction. On the other hand, if we reject that laws have exceptionless normative status, then either (1) or (2) is false; which one is false might depend on the context.

4. "Definition" Paradoxes

One might attempt to define 'wulture' as follows:[3]

1. All vultures are wultures.
2. No wultures are black.

Now suppose that the following sentence is true:

3. Delia is a black vulture.

According to (1), Delia is a wulture; but according to (2), Delia is not a wulture. Contradiction.

This does not persuade. We have *not* been given a definition of 'wulture'. A definition of 'wulture' would be a linguistic item that is intersubstitutable with 'wulture'. We have not been given that. We have simply been given three inconsistent sentences. Since we don't know what a "wulture" is supposed to be, we have no reason to think that all three sentences are true.

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[1] This objection is adapted from Jc Beall.

[2] This and the next objection are adapted from Graham Priest.

[3] This objection is adapted from Kane Baker, "There are true contradictions", *Kane B* (YouTube, 2023).

Reference Paradoxes

The previous essay addressed four categories of objections to the law of non-contradiction. This essay addresses a fifth category: reference paradoxes.

1. Self-Reference

One might say that a contradiction arises when propositions refer to themselves and each other in certain ways. Take the *Liar Paradox*, the most infamous and iconic of all paradoxes:[1]

(L) This proposition is false.

Is *L* true or false? If it's true, then whatever it says is true. So what does it say? Well, it says that it is *false*! So if it is true, then it is *also* false. But if it is false—well, that's just what it says it is! So it truly reports that it is false. So it is *both* true and false. And since anything that is false is not true, *L* is both true and not true, thereby violating the law of non-contradiction.

One might try to escape by saying that *L* is *neither* true nor false. (Note that this breaks the law of excluded middle.) This does solve the Liar Paradox. But there is another paradox: the Simple Untruth Paradox:

(S) This proposition is not true.

Note that *S* is not the same as *L*. This is because being *not true* is not the same as being *false*. For example, consider the word 'carrot'. The word 'carrot' is obviously not true, since it's not making any true claims. It's not making any claims at all! But if it's not claiming anything at all, then it is not false either. It is simply not a proposition. (So everything that is false is not true, but not everything that is not true is false.)

So: is *S* true, false, or neither? If it's true, then whatever it says is true. So what does it say? Well, it says that it is *not true*! So if it is true, then it is *also* not true. What if it's false? If it's false, then it's not true, since anything that is false is not true. But that's just what it says it is! It truly reports that it is not true, which means it is both true and not true. What if it's *neither* true nor false? Well, obviously that means it's not true. And if it's not true, then it *is* true, since it truly reports that it is not true. So whichever way we go, we end up with a contradiction.

One might try to escape by saying that propositions do not exist, thinking that if no propositions exist, then one cannot generate the sort of contradictions seen above. But this doesn't seem right. For one can generate the same problem by saying, "Right now, I am not speaking truthfully". Are they speaking truthfully or not? We are stuck with the same problem.

2. Looping Reference

A similar problem is generated by the Liar Loop:

(A) The proposition *B* is true.
(B) The proposition *A* is false.

If *A* is true, then *B* is true, since that's just what *A* says. But then if *B* is true, then *A* is false, since that's just what *B* says. So if *A* is true, then *A* is also false. On the other hand, suppose *A* is false. That's just what *B* says: *B* says that *A* is false. So *B* is true. But then *A* truly reports that *B* is true, which means *A* is true. So if *A* is false, then *A* is also true. Once again, we have a contradiction.

3. Infinite Reference

A related problem is generated by the Infinite Liar:[2]

(L1) All the propositions below are false.
(L2) All the propositions below are false.
(L3) All the propositions below are false.
(continue infinitely)

If *L1* is true, then all the propositions below *L1* are false. That includes *L2*. But if *L2* is false, then *not* all the propositions below *L2* are false. But since *L2* is below *L1*, and not all the propositions below *L2* are false, then not all the propositions below *L1* are false. So it is true and not true that all the propositions below *L1* are false.

On the other hand, if *L1* is false, then *not* all the propositions below *L1* are false. Following the law of excluded middle, that means there is a true proposition *somewhere* below *L1*. Let us call that true proposition *Lx*. Since *Lx* is true, all the propositions below *Lx* are false. But now we have the exact same scenario we had with *L1* above. So we end up with a contradiction.

4. Explosion

These are monstrous issues. But what would be the problem with true contradictions? A common answer is the *principle of explosion*: the idea that a true contradiction implies that *every claim is true*, no matter how bizarre.

To understand explosion, take the idea of an *either-or*, which is a statement like "Either it will rain tomorrow or it will rain next week". An either-or is true when at least one of its options is true. So suppose we have a true either-or. For example, suppose that either it will rain tomorrow or it will rain next week. Now suppose we find out that it will *not* rain tomorrow. What can we infer? Well, since the either-or is true, at least one of its options is true. We found that the first option is not true. Therefore, the second option is true. It will rain next week.

This seems like an impeccable inference. After all, this is how the process of elimination works: faced with a set of options, we might find the correct option by *ruling out—eliminating*—all the other options in the set. The name for this inference is the *law of disjunctive syllogism*: if one of the options of a true either-or is not true, then the other option is true.

But consider what happens if we have a contradiction. If there is a contradiction, then some proposition *p* is both true and not true. That means *p* is true. But since *p* is true, we can conclude that either *p* is true or every claim is true. (This either-or statement is true since at least one of its options is true.) But as supposed at the beginning, *p* is also *not* true. Now, that means the first option of the either-or is not true. Which means that, according to the law of disjunctive syllogism, the second option of the either-or *is* true. So every claim is true.

So if there is a true contradiction, there is an *explosion* of truth to every claim, just like the principle of explosion predicts. The explosion is not confined to the abstract realm of propositions. If there is a contradiction, then *every claim about anything is true*.

However, I actually do not think this is a problem. Those who believe in contradictions can say that *even if* the first option of a true either-or is not true, that doesn't mean the second option is true. Merely finding out that the first option is not true is *not enough to rule it out*, since the first option might *also be true*! In that case, the either-or is satisfied, since one of its options is true. And so we don't have to accept the law of disjunctive syllogism. Therefore, it doesn't look like explosion is a consequence of true contradictions. Disjunctive syllogism, at the very most, applies only in cases that do *not* involve contradictions—it doesn't apply in contradictory cases.[3]

5. Curry's Paradox

But even if explosion isn't a consequence of contradictions, it *is* a consequence of letting a proposition refer to itself. Consider Curry's Paradox, generated by the following proposition:[4]

(C) *C* implies that every claim is true.

If *C* is true, then *C* is true (obviously). And if *C* is true, then *C* implies that every claim is true (obviously, since that's just what *C* says). So that means if *C* is true, then *both C* is true *and C* implies that every claim is true. But if *both C* is true *and C* implies that every claim is true, then every claim is true.

So if *C* is true, then ultimately, every claim is true. In other words, *C* implies that every claim is true. But that's just what *C* says: *C* itself *says* that *C* implies that every claim is true! So *C* correctly reports this, which means that *C* is true. But if *C* is true and *C* implies that every claim is true, then every claim is true. So every claim is true.

So letting a proposition refer to itself opens the door to Curry's Paradox, which in turn opens the door to an explosion of truth.

6. The Solution of Proper Definitions

Curry's Paradox seems to be motivation to think that a proposition cannot assert or suppose its own truth or falsity. If so, then propositions are more *restricted* than it looks at first glance. My solution, drawing upon remarks from Tim McGrew, Michael Glanzberg, Parker Settecase, and Steve Patterson, as well as some of my own ideas, is to propose a fourth law of classical logic:

4. *Proper definition*: Every proposition is ultimately defined by primitive terms.[5]

Does the Fourth Law solve the Liar Paradox? We can test this by *supposing* that *L* is a proposition defined in terms of itself. If we end up with something that contradicts what we originally supposed, then we must deny what we supposed. So let's suppose that *L* is the proposition ⟨This proposition is false⟩, which reduces to ⟨*L* is false⟩. Is *L* ultimately defined by solely primitive terms? (I define a *primitive term* as a term that is not itself defined by terms.) The definition of *L* is ⟨*L* is false⟩. The first term in that definition is *L*, which is not primitive.

We could try to *reduce* the definition by replacing *L* with its own definition, which is ⟨*L* is false⟩. This would reduce ⟨*L* is false⟩ to ⟨⟨*L* is false⟩ is false⟩. But this brings us no closer to having only primitive terms. We still have the *exact same non-primitive term* that we had last time: *L*. It is clear that no matter what we do, it is impossible to define *L* in a way that doesn't involve *L*.

Therefore, *L* is *not* ultimately defined by solely primitive terms. So according to the Fourth Law, *L* is not a proposition. This contradicts what we originally supposed, so we must deny what we supposed. Therefore, *L* is not a proposition defined in terms of itself. To make this solution more secure, I go further: *L* is not a proposition *and L* is not defined in terms of itself. Since we cannot come up with a proper definition for *L*, it is simply a *primitive*, *meaningless term*.[6] Of course, we'll get the same result for *any* supposed proposition that refers to itself. So we get the result that there are no propositions that refer to themselves.

So regarding the Simple Untruth Paradox and Curry's Paradox: *S* and *C* are primitive, meaningless terms. The same goes for the Knower Paradox, where *K* is supposedly defined as ⟨*K* is not known⟩. Such a definition is impossible, and so *K* is instead a meaningless, primitive term. Similarly with the Liar Loop: Supposing that *A* and *B* are defined in terms of each other, neither of them is ultimately defined by primitive terms, which means neither is a proposition. So *A* and *B* are meaningless terms. Finally, with the Infinite Liar, *L1* is supposedly defined in terms of *L2* (et al.), which is supposedly defined in terms of *L3* (et al.), and so on *ad infinitum*. Thus, *L1* is *not* ultimately defined by primitive terms, and so it is not a proposition. The same goes for all the other supposed propositions in the infinite list. None of them are actually propositions.[7]

(Essay continues.)

7. Objections

One might object that *it sure looks like L* expresses a proposition. It has a subject and predicate, and it appears to be making a claim. However, lots of things *look* like they propositions but actually do not. For example, take the sentence 'Every julimo is catarnic'. This looks like it expresses a proposition, but 'julimo' and 'catarnic' are meaningless nonsense words. Thus, the sentence isn't claiming anything, and so it does not express a proposition.[8]

One might object that *it sure seems like* propositions can refer to themselves. For example, does not the law of excluded middle (LEM), ⟨Every proposition is at least true or false⟩, refer to itself? It *does* seem clear, a priori, that propositions can refer to themselves. But it is *abundantly more clear* to me that we cannot have explosion, and Curry's Paradox demonstrates that certain types of self-reference lead to explosion.

As for the LEM, it seems we don't have to think that it is referring to itself. Instead, we can support the Fourth Law by appealing to *levels* of propositions, and saying that a proposition can only refer to propositions from a *lower* level. For example, consider a world so small that it contains only two propositions at the lowest level:

(E) Cats are cool.
(F) Dogs are cool.

Now suppose that *E* and *F* generate the LEM, and so it is at a higher level than *E* and *F*. Now, maybe the LEM refers to itself. But it seems at least as reasonable to say that it refers only to *E* and *F*, since these are all the propositions on levels *lower* than the LEM. So the LEM *reduces* to ⟨*E* is at least true or false, and *F* is at least true or false⟩.[9]

One might object that there are undeniable cases of self-reference—for example, the sentence 'This sentence has five words'. But this is not a case of self-reference. The sentence is not referring to anything, since sentences do not refer to anything; sentences are merely linguistic items that may or may not express propositions. That sentence *does* express a proposition, but that proposition is referring to the sentence, since the sentence (not the proposition) is the thing that has five words. And so the proposition does not refer to itself either. No self-reference.

One might object that my solution fails against the Simple Untruth Paradox. Recall that *S* is the proposition ⟨This proposition is not true⟩, which reduces to ⟨*S* is not true⟩. If *S* is meaningless, as the Fourth Law says, then *S* is not true. But that's just what *S* says! So *S* is in fact true. Which means that *S* both is and is not true. Contradiction.

But this is mistaken. According to the Fourth Law, *S* is meaningless. So it is *not the case* that *S* says that *S* is not true. *S* doesn't say *anything*!

One might object that the statement ⟨*S* is meaningless⟩ is itself meaningless, because that statement uses a meaningless term, *S*. But this view is self-refuting. If we say that ⟨Statements using *S* are meaningless⟩, then *that statement itself is meaningless*, since it uses *S*. So it seems much more reasonable to say that meaningful statements can contain meaningless terms, so long as these terms are primitive.

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[1] Jc Beall, Michael Glanzberg, and David Ripley, "Liar Paradox", *Stanford Encyclopedia of Philosophy*.

[2] This example is adapted from Stephen Yablo, "Paradox without Self-Reference", *Analysis* 53.4 (1993): 251-252. Below is my formalization of Yablo's reasoning: Thanks to Deborah C. Smith for providing the reasoning in lines 4-9, 15, 16, and 19-22. Supposing 'S_x' is defined as the sentence '$\forall k\,(k > x \rightarrow \sim S_k)$', where x and k are integers:

1.	| |	$\exists x\, S_x$	CPrem
2.	| | |	S_n	CPrem
3.	| | |	$\forall k\,(k > n \rightarrow \sim S_k)$	Sub 2 (definition of S_n)
4.	| | |	$a > n \rightarrow \sim S_a$	∀ Elim 3 ($k \Rightarrow a$)
5.	| | | |	$a > n{+}1$	CPrem
6.	| | | |	$a > n{+}1 \rightarrow a > n$	Theorem of Arithmetic
7.	| | | |	$a > n$	MP 5, 6
8.	| | | |	$\sim S_a$	MP 4, 7
9.	| | |	$a > n{+}1 \rightarrow \sim S_a$	CProof 5-8
10.	| | |	$\forall k\,(k > n{+}1 \rightarrow \sim S_k)$	∀ Intro 3-9 ($a \Rightarrow k$)
11.	| | |	$n{+}1 > n$	Theorem of Arithmetic
12.	| | |	$(n{+}1 > n) \rightarrow \sim S_{n+1}$	∀ Elim 3 ($k \Rightarrow n{+}1$)
13.	| | |	$\sim S_{n+1}$	MP 11, 12
14.	| | |	$\sim\forall k\,(k > n{+}1 \rightarrow \sim S_k)$	Sub 13 (definition of S_{n+1})
15.	| | |	$p \cdot \sim p$	EFQ 10, 14
16.	| |	$p \cdot \sim p$	∃ Elim 1, 2, 15
17.	$\sim\exists x\, S_x$		RAA 1-16
18.	$\forall k \sim S_k$		Quantifier Exchange 17
19.	$\sim S_b$		∀ Elim 18 ($k \Rightarrow b$)
20.	$\sim(b > m) \vee \sim S_b$		Add 19
21.	$b > m \rightarrow \sim S_b$		Conditional Disjunction 20
22.	$\forall k\,(k > m \rightarrow \sim S_k)$		∀ Intro 18-21 ($b \Rightarrow k$)
23.	$\sim S_m$		∀ Elim 18 ($k \Rightarrow m$)
24.	$\sim\forall k\,(k > m \rightarrow \sim S_k)$		Sub 23 (definition of S_m)
25.	$p \cdot \sim p$		EFQ 22, 24

I reject 3, 14, and 24. Since S_x is a meaningless, primitive linguistic item, it cannot be replaced with a definition.

[3] This idea is from Graham Priest (by way of Kane Baker).

[4] Lionel Shapiro and Jc Beall, "Curry's Paradox". Thanks to Joe Schmid for introducing me to this problem.

[5] Below are some other candidates for the Fourth Law that I considered:

(4a) Every thing is ultimately defined by solely primitive terms.

This one would prevent us from talking about the terms in question. As shown above, *L* is not ultimately defined by solely primitive terms. This means that *L* is not a thing. But then we cannot even talk about *L*.

(4b) No proposition refers to itself or to a series of propositions such as the Infinite Liar.

This might actually work—however, it is *ad hoc*.

(4c) Every thing is ultimately defined in primitive terms.

This also might work, but I see no reason to be so extreme. So I limit the Fourth Law to propositions.

[6] Steve Patterson, "How to Resolve the Liar's Paradox", *Steve Patterson* (YouTube, 2015), proposes a similar solution but has difficulty applying it to the Simple Untruth Paradox. See Patterson, "Ep. 83 - Logic, Contradictions, and the Liar Paradox | Dr. Graham Priest", *Steve Patterson* (YouTube, 2018).

[7] Thanks to Tim McGrew and Parker Settecase for introducing me to the "non-proposition" solution, although it wasn't until over a year later that I discovered how to apply it to the Simple Untruth Paradox. As an alternative, one could keep the Fourth Law but simply say that propositions that *look like* they are referring to themselves are actually not—between the proposition and the reference there is a *change of context* so that the proposition is actually referring to a different proposition (which could be a different "version" of the same proposition, but in a different context). To me, this seems less likely than my alternative. For contextual approaches see Robert Koons, *Paradoxes of Belief and Strategic Rationality* (Cambridge University Press, 2009) and Michael Glanzberg, "A Contextual-Hierarchical Approach to Truth and the Liar Paradox", *Journal of Philosophical Logic* 33.1 (2004). Full disclosure: I have not read through either of these sources and so do not claim to accurately represent their views. I got through about a tenth of Glanzberg's article before it became unreadable to me due to its technical nature.

[8] One might say the same thing about abstract propositions used for teaching logic, such as $\langle p \rightarrow q \rangle$. But this seems wrong, since the terms *p* and *q* are symbols *representing* propositions. At any point we should be able to substitute in real-world values for *p* and *q*. This is not the case for *julimo* and *catarnic*, since I specifically designed them to be nonsense words that do not represent anything.

[9] The same goes for Russell's paradoxes generated by propositions such as (G) ⟨Every proposition that is not about itself is not about itself⟩. *G* cannot be about itself, since just from reading it, it is obvious that it is only about propositions that are *not* about themselves. But if *G* is not about itself, then it *would* be included in the propositions that it mentions—so *G is* about itself. Contradiction.

This is solved if we say that a proposition can only refer to propositions from a lower level. So even though *G* looks like it is about just *any* proposition that is not about itself, it is *actually* only about *lower-level* propositions that are not about themselves. So *G* is not about itself, and the propositions it mentions are only lower-level propositions. I owe the multiple-levels solution to Joshua Rasmussen, *How Reason Can Lead to God* (IVP Academic, 2019).

The Incompleteness Paradox

1. The Universal Reference Dilemma

In the previous essay, I concluded that

(P) There are no propositions that refer to themselves.

Now, if there are propositions, but not one of them refers to itself, then it follows that every proposition is one that does *not* refer to itself. So *P* entails that

(Q) Every proposition is one that does not refer to itself.

Suppose *Q* is a proposition. Does *Q* refer to itself? If so, then we have a contradiction: every proposition does not refer to itself, but *Q* is a proposition that does refer to itself. But if *Q* does not refer to itself, then we have a contradiction: *Q* is refers to every proposition—that's what it says, after all—but *Q* doesn't refer to itself, and so *Q* does not refer to every proposition. So if *Q* is a proposition, then we have a contradiction either way.[1]

2. The Hierarchy Solution

Perhaps we can avoid the dilemma by using different levels of propositions, as I did in the previous essay. Suppose that propositions can only refer to propositions from lower levels. So despite appearances, *Q* does not refer to itself: when it uses the term "every proposition", it is only referring to propositions from lower levels—i.e., propositions that were "already there" before *Q* was generated. In other words, there are a bunch of lower-level propositions that do not refer to themselves, and they automatically generate *Q*, since *Q* is simply a description of those lower-level propositions. So *Q* is *not* about every proposition, since it doesn't refer to itself. But now a new proposition is generated:

(R) *Q* does not refer to itself.

The earlier question re-arises: does *R* refer to itself? And this never ends: for any proposition *X* that doesn't refer to itself, there is a higher-level proposition stating that *X* does not refer to itself.

There seem to be two problems. The first is the unavoidable, infinite hierarchy of propositions that obtains *even if* we aren't aware of it (assuming that truth is absolute). One might object that the series is *benign*, similar to the trivial series:

(A) Cats are cool.
(B) A is true.
(C) B is true.
etc.

But this seems wrong. First of all, it seems that the *A*, *B*, *C*, … series is a logical necessity on any view. Second of all, it seems that *B*, *C*, and following are just restatements of *A*. In other words, the proposition ⟨It is true that cats are cool⟩ is *identical* to the proposition ⟨Cats are cool⟩. So this benign "series" is simply a series of repetitions of the same proposition.

By contrast, the series generated by *Q* and *R* is *not* a logical necessity on any view: if *Q* in fact refers to itself, then the infinite hierarchy is blocked, since *Q* already contains *R*. And if the series were to occur, it seems that it would not be simply repetitions of the same proposition. Consider two propositions from the series:

(R) *Q* does not refer to itself.
(S) *R* does not refer to itself.

Obviously, *R* and *S* are not identical. And so the *Q*, *R*, *S*, … series is not benign in the way that the *A*, *B*, *C*, … series is.

The second problem is the *Incompleteness Paradox*: the inability to refer to *all* facts. Intuitively, it seems that we *can* refer to all facts. Take the Second Law of classical logic: ⟨Every proposition is either true or false⟩. Surely the Second Law applies to *all* propositions! Surely there are no stray propositions not covered by it! But if the Second Law does not refer to itself, then it doesn't cover itself, and so there *is* a proposition that is not covered by it.

In general, if we forbid self-reference, we *cannot* refer to all facts. We can only refer to *lower-level* facts. No matter what we say, there will always be an infinite hierarchy of higher-level facts that we cannot cover. And so it seems that *every* proposition refers only to lower-level propositions. But… strictly speaking, we cannot even say *that*, since we aren't allowed to talk about *every* proposition—we are only allowed to talk about lower-level propositions!

Something is seriously wrong here. Either we have a contradiction—'Every proposition is only about lower-level propositions, but what I just said is about itself and so *not* only about lower-level propositions'—or truth works in an extremely awkward and counterintuitive way. One might be tempted to allow for self-reference again, but then they run back into Curry's Paradox. If one accepts self-reference in some cases to avoid the Incompleteness Paradox, one must deny it in other cases to avoid Curry's Paradox and the other self-reference paradoxes. But this is *ad hoc* and special pleading. Is there a better solution?

3. The Nominalist-Deflationary Solution

Combining nominalism and deflationism appears to provide a satisfying solution. *Nominalism* is the view that propositions do not exist. If there are no propositions, then there is no infinite hierarchy of propositions. There are no propositions that are about each other or about anything else. So that avoids the first problem above. *Deflationism* is the view that when we talk about

truth, we are really just talking about how things are—we aren't committing ourselves to truth as an existing substance or property.

For me, the only *things* that exist are concrete, interacting objects or stuff, such as physical matter, energy, people, and so on. For example, imagine a world where only a traditional God exists. In this world, the following propositions are true (among other propositions):

(L) Exactly one object exists.
(M) There is a perfect being.
(N) There is a mental being.

But it's false that these propositions—*L*, *M*, and *N*—exist in addition to God. No propositions can be generated in this world, no matter what happens. So whether God thinks, "Exactly one object exists", or "It's true that exactly one object exists", that doesn't generate any propositions. God is just describing how things are.

Recall that the Universal Reference Dilemma appears only if *Q* is a proposition. The nominalist solution denies that *Q* (or anything else) is a proposition and thereby avoids the dilemma.

And of course, if we add in the physical universe, nothing relevant changes. No propositions are generated, and any talk about truth is simply talk about how things are. There doesn't seem to be any way to generate the hierarchy or incompleteness problems if we don't have any propositions to begin with. There is no such thing as "all facts" that we bewilderingly fail to refer to. Rather, there is the totality of existing things, and it is quite easy to refer to and describe that totality.

Note that on the nominalist-deflationary solution, strictly speaking, nothing is true or false. This is for the simple reason that there are no propositions, so there's nothing that *could* be true or false. Again, "truth" and "falsity" are merely linguistic devices to help us describe how things are and how things aren't.

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[1] This is a variation of Russell's paradox.

The Knowability Paradox

Consider the following two claims that are each plausible (at least to non-theists):

1. All facts are knowable.
2. There are some unknown facts.

If there are some unknown facts, let P be one of these unknown facts. So P is an unknown fact. But then the sentence 'P is an unknown fact' is also a fact. And if all facts are knowable, then the sentence 'P is an unknown fact' is knowable. But that sentence is *not* knowable. It's impossible to know that P is an unknown fact, since that would require knowing that P is true and *also* knowing that it's *unknown* whether P is true! So the two claims are inconsistent.[1]

I could be wrong, but it's hard to see how this is a paradox. Sure, it is impossible for it to be true that *both* all facts are knowable *and* there are some unknown facts. This is obvious: necessarily, if it's true that P is an unknown fact, then it is *also* true that it is *unknown* that P is an unknown fact. Therefore, those who accept (2) should obviously reject (1).

But the fact that not all facts are knowable does not entail that necessarily, not all facts are known. To put it formally, $\sim\forall p\ (p \rightarrow \Diamond \mathrm{K}p)$ does not entail $\Box\sim\forall p\ (p \rightarrow \mathrm{K}p)$. For consider a scenario (either in a parallel world or some future time in our world) in which we come to know all the first-order facts. In such a scenario, there are no facts of the form 'P is an unknown fact'. Perhaps there *used to be* such facts, but there are none any longer. After all, if some fact P comes to be known, then the sentence 'P is an unknown fact' ceases to be a fact. Obviously, in a scenario where every fact is known, (1) is true and (2) is false.

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[1] Formally:

1.	$\forall p\ (p \rightarrow \Diamond \mathrm{K}p)$	Assumption: All facts are knowable.
2.	$\exists p\ (p \cdot \sim \mathrm{K}p)$	Assumption: There are some unknown facts.
3.	$\mathrm{K}p \rightarrow p$	Axiom: If a proposition is known, it is true.
4.	$\mathrm{K}(p \cdot q) \rightarrow (\mathrm{K}p \cdot \mathrm{K}q)$	Axiom: If a conjunction is known, so are its conjuncts.
5.	$\mathrm{K}(p \cdot \sim \mathrm{K}p)$	CPrem
6.	$\mathrm{K}p \cdot \mathrm{K}\sim \mathrm{K}p$	MP 4, 5
7.	$\mathrm{K}p$	Simp 6
8.	$\mathrm{K}\sim \mathrm{K}p$	Simp 6
9.	$\sim \mathrm{K}p$	MP 3, 8
10.	$\mathrm{K}p \cdot \sim \mathrm{K}p$	Conj 7, 9
11.	$\sim \mathrm{K}(p \cdot \sim \mathrm{K}p)$	Theorem (RAA 5-10)
12.	$\Box\sim \mathrm{K}(p \cdot \sim \mathrm{K}p)$	N 11
13.	$\sim\Diamond \mathrm{K}(p \cdot \sim \mathrm{K}p)$	Dual 12
14.	$(p \cdot \sim \mathrm{K}p) \rightarrow \Diamond \mathrm{K}(p \cdot \sim \mathrm{K}p)$	∀ Elim 1
15.	$p \cdot \sim \mathrm{K}p$	CPrem (∃ Elim 2)
16.	$\Diamond \mathrm{K}(p \cdot \sim \mathrm{K}p)$	MP 14, 15
17.	$r \cdot \sim r$	EFQ 13, 16
18.	$r \cdot \sim r$	∃ Elim 2, 15, 17

METAPHYSICS

Existence

What is *existence*? One might try to characterize *existence* in terms of more supposedly more fundamental concepts, such as *bearing properties* or *possessing powers*. But it seems to me that the concept of existence is *more* fundamental than *bearing properties* or *possessing powers*. Existence is, to put it loosely, the "first bar" that an object must meet before it could have *any* properties or powers—or have *anything* for that matter. For this reason, the concept of existence is plausibly more fundamental than any concept one might use to characterize it.

Thus, I take it to be a *primitive concept*. There are multiple *sentences* that adequately *express* the concept of existence—e.g., 'an X exists', 'an X is real', 'an X is in reality', 'there is an X', 'the number of Xs is more than zero'—but these phrases all mean exactly the same thing, and none is more basic than any of the others. Because of this, it is incoherent to say "There are some things that exist, and there are some things that don't", since that translates to "There exist some things that exist, and there exist some things that do not exist". There are *no* things that do not exist!

One might think that existence is an *object*, but that doesn't seem right. I am an object. Perhaps tables and chairs are objects. But *existence* itself doesn't seem to fit into that category; 'existence' is just a word used to speak generally about objects that exist.

One might think that existence is a *property*. For example, *things* can have the property of existing. But once again, *existence* doesn't seem to fit into the category of ordinary properties such as *size*, *color*, or *shape*. Moreover, if we call existence a property that things could have, that makes it at least *conceptually* possible that something might *not* have that property. But could there be things that *don't* have the property of existence? Surely not, because that would mean there are things that don't exist! Finally, it seems unnecessary to call existence a property. It seems simpler and more intuitive to say that some things exist (such as matter and energy) and some things do not exist (such as unicorns and dragons).

It also seems that existence is *univocal*. When I use the word *exist*, I always mean the exact same thing every time, whether I am talking about a physical object existing, an immaterial soul existing, or an abstract number existing. It also seems that existence is *bivalent*: there are no *degrees* of existence. Something can't "halfway" exist or have a certain "amount" of existence. Something can't be "more real" than something else. There aren't multiple "levels" of existence (whatever in the world that could mean). Either something exists, or it doesn't. And of course, there are no "non-existent things", since such a thing would, under any reasonable interpretation, lead to a contradiction ('*x* exists and *x* does not exist').

Identity

1. Classical Identity

Numerical identity (hereafter 'identity') is the concept of an object's being itself. It seems obvious that every thing is the same thing as itself. Sometimes a single object can be described in multiple different ways. For example, the morning star and the evening star are identical, since they are the same star. There is really just *one* star there—Venus—under two different names—'the morning star' and 'the evening star'. The person who typed *this* word and the person who typed *this* word are identical, since they are the same person: me. Identity is not the same as *exact similarity*. Two things are *exactly similar* if and only if they bear all the same intrinsic properties, such as two tomatoes that are the exact same color, size, shape, mass, and so on. But in that case, there are still *two* tomatoes. They are not the same object. They are not *identical* even though they are *exactly similar*.[1]

On a classical theory of identity, identity is *bivalent*: For every X and every Y, either X and Y are numerically distinct (they are two different things), or "they" are identical ("they" are one and the same thing, and so there is only one thing). There are no cases where X and Y are *both* identical and distinct, or *neither* identical or distinct, or "sort of" identical.

Classical identity is also *absolute*: Two things cannot be the same N but not the same P. For example, you can't have two things that are the same *electron* but not the same *particle*. If two things are different electrons, then they are different particles; if two things are the same electron, then they are the same particle. Every thing is identical in every way with only itself and is not identical in any way with any other thing.

As a relation identity has the following four features ('=' means 'is identical with') (note that the first is the classical *law of identity*):[2]

- *Reflexive:* for all A: A = A
- *Symmetric:* for all A and B: if A = B, then B = A
- *Transitive:* for all A, B, and C: if A = B, and B = C, then A = C
- *Euclidean:* for all A, B, and C: if A = C, and B = C, then A = B

(Essay continues.)

2. Non-Classical Conceptions of Identity

There are at least three non-classical conceptions of identity:

1. Partial identity. X and Y are *partially identical* if and only if X and Y partially but not fully *overlap*—i.e., X and Y share some but not all of their parts in common. Consider a case where my brain is split in half, such that each half takes on a conscious life of its own and thus becomes an individual person. Since each half has unique thoughts, the two halves are not identical with each other, which means they are not both identical with *me*, since that would violate transitivity of identity. The partial identity theorist would say that each of them is *partially* identical with me, since I (when I existed) shared parts with each of them (as they exist now). Since partial identity is not transitive, no inconsistency ensues.[3]

2. Relative identity. X and Y are *relatively identical* if and only if X and Y are identical with each other relative to *one* type of thing, but distinct from each other relative to *another* type of thing. Consider a stone pillar chiseled into the shape of a statue. Even though there is only one material object (a mass of stone), there are two distinct and simultaneous matter-form constitutions (a pillar and a statue) with different functions (to support and to display, respectively). The pillar and the statue are thus the same *mass of stone*, but they are different *matter-form constitutions*.[4]

3. Vague identity. X and Y are *vaguely identical* if and only if it is indeterminate—i.e., neither true nor false—that X and Y are identical. Consider some bodily mishaps: If someone's finger gets blown to bits, they will obviously survive. But if someone's entire body gets blown to bits, they will *not* survive. This plausibly entails that, if their body is magically reconstructed after the explosion, the resulting person will *not* be them; it will be a new person. Now suppose that there are "indeterminate mishaps" where it is *indeterminate* whether a person survives—for example, 60% of someone's body is blown to bits—including 60% of their brain—and then reconstructed. The vague identity theorist would say that, in such cases, it is indeterminate whether the person before the mishap is identical with the person after the mishap.[5]

3. Unity

There seem to be four "scopes" or "extents" of classical identity: *unity*, *persistence*, *retainment*, and *counterfactual identity*.[6]

Unity is the concept that a thing keeps its identity even as it moves through space. The person who was in a particular location riding on their bike earlier today is the same person who is typing *this* word—"they" are both me, even though one was over there and the other is over here. It seems obvious that a thing can move around and continue to be itself. One question is whether things can *teleport*: can a thing instantly move to another location without traversing the intervening space?[7] Or is spatial continuity required to maintain identity? There's nothing contradictory about teleportation, and it seems metaphysically possible (apart from additional constraints imposed by one's particular metaphysical theory).

Suppose there is a machine that, when you place an object into it, either teleports the object to Australia, or destroys the object and creates a new object in Australia, and it is a matter of random chance which action the machine performs. Suppose you put a cat into it. The cat disappears, and a cat appears in Australia. Is the new cat identical to the old cat?

Three things seem clear. First, the answer is either Yes or No. Second, there is no way to *observe* which answer is correct. It must be *inferred*,[8] and so more skeptically minded people might say that it is impossible in principle to know or be certain of the answer. Third, there is nothing that could provide an *explanation* for why the old cat and the new cat are identical (if they are) or why they aren't (if they aren't). This is because whether they are identical is as basic a metaphysical fact as anything else—the fact of their identity (or non-identity) simply *cannot* have an explanation, since there is nothing even more basic that could provide one.[9] One might say that there is a *causal explanation*: the machine *caused* the cat to teleport. But this just pushes the question back: Why and how did the machine do that? What made the machine teleport the cat rather than replace it? Plus, many intuitive necessary or sufficient *conditions* for identity don't even seem to work: the two cats could be identical even if they looked different, and they could be non-identical even if they looked the same.

Now, the exact same three consequences seem to apply to ordinary motion. A minute ago, some guy was reading my book on my bed. Now, some guy is typing *this* word. Are they the same guy? Was this actually *motion*, or merely *replacement*? Again: (1) the answer is either Yes or No; (2) the truth of either a positive or negative answer cannot be observed; the earlier guy could have been destroyed and replaced by a duplicate who had all the earlier guy's memories; and (3) there can't be an explanation as to why they are identical (if they are) or why they aren't (if they aren't). And so it's conceivable to *doubt* that identity is real: maybe it is an illusion and nothing has identity. But the idea that identity is not real seems as false as it gets, if you believe that objects exist. If an object exists, then it is the same object as itself, and so you have identity.

There also seem to be two overwhelming *reasons* to believe in ordinary motion: First, it is far simpler, less arbitrary, and more natural to suppose that what appears to be a continuously moving object *actually is* a continuously moving object, rather than a series of separate objects that are being created and destroyed. Second, it seems that no plausible metaphysical theory would allow for this sort of deceptive repetitive creation and destruction. On any version of traditional theism, God wouldn't be so irrational as to destroy and replace every object at every instant instead of just letting objects move around. On any plausible version of atheism, particles simply don't have the ability to suddenly pop into or out of existence with no explanation.[10]

4. Persistence

Persistence is the concept that a thing keeps its identity as time passes. The person who typed on this computer yesterday and the person who is typing *this* word are identical ("they" are both me), even though time has passed. Is it possible for an object to jump discontinuously to an earlier or later time (assuming that the nature of time doesn't prohibit this)? Well, it seems that

things are just the same as in the spatial case: (A) time travel is not contradictory; (B) apart from metaphysical commitments, it's not metaphysically impossible; (C) (1) it's either true or false that a person who exits a time-travel machine is the person who enters it; (2) there's no way to observe which answer is correct; (3) there can be no explanation either way; (D) the same applies to ordinary persistence through time; but (E) there are strong reasons to believe in persistence.

This would also seem to apply to the question of whether an object can have *temporal gaps* in its existence—i.e., whether it is possible for something to *cease to exist* at some time and then *resume existing* at a later time, rather than simply being destroyed and replaced by a new object.

5. Retainment

Retainment is the concept that a thing keeps its identity even as it changes. A thing changes by gaining or losing properties, or (if it is made of parts) by gaining or losing parts. I don't think any objects are made of parts, and so for now I won't say anything about such objects other than to refer the reader to work that has already been done.[11] As for objects that are not made of parts, I can't see any problems with retainment apart from the problem of persistence outlined above. An object changes from green to red—it is still the same object. It is identical with that earlier object, even though it is not exactly similar to that earlier object.

One type of change that *does* seem impossible is changing into a different type of thing. It seems impossible for me to change into an electron; if I disappear and an electron appears in my place, then surely the electron is not me; it's simply a different object. Of course, I don't know if anyone could *observe* whether or not two objects are actually different types.

6. Counterfactual Identity

Counterfactual identity is the concept that if circumstances were different, some thing *would be* identical with some actual thing.

6.1. Counterfactual Identity Given Divergence During Existence

Suppose I had decided to eat two protein bars this morning, instead of merely the one that I actually ate. Would the person who would have eaten two protein bars have been *me*, or would they merely have been some more gluttonous "duplicate" or "alternate version" of me? It seems quite clear to me that they would have been *me*. There seems to be nothing about making alternate choices that even threatens identity. After all, I can presumably choose to eat one or two bars tomorrow, and in either case, it will be *me* who eats the bar(s), not a duplicate of me! The fact that I (presumably) have the power to choose from multiple options seems to entail the reality of counterfactual identity.

6.2. Counterfactual Identity Given Unrelated Divergence Before Existence

Suppose that, a split second before I came into existence (whether I am a physical object or a soul), some unrelated event had happened differently in the far reaches of space. For example, suppose that some random particle in the Andromeda Galaxy had zipped in a different direction than it actually did. Would I still have come into existence, or would some *other* physical object or soul have come into existence in my place? Again, it seems quite clear that the answer is the former. Assuming that there wouldn't have been some *other* indeterministic event that would have *altered* the causal chain leading to my existence, it seems that an unrelated event has no power to make a difference about the identity of the resulting physical object or soul.

6.3. Counterfactual Identity Given Related Divergence Before Existence

Suppose that the causal chain leading to my existence *had been* altered, but that some physical object or soul had still come into existence. Would that physical object or soul have been *me*, or not me? As van Inwagen points out, if you say No, then you're saying that your identity is necessarily associated with an exact causal chain, which seems overly specific. But if you say Yes, then where do you draw the line? Could you have been born 10 years earlier or later? Could you have been caused to exist by some *other* zygote in some *other* female's womb? This third question might tempt some to think that counterfactual identity is an illusion, or that there is no right answer to these questions, or that identity is vague and that a possible person can be "vaguely" or "partially" identical with you.

It seems that the best approach is to lay down some basic, intuitive metaphysical laws. I'm open to revising these laws, but only if other laws end up becoming more intuitive or are deduced from more intuitive premises. For me, the three laws are: (1) there is *always* a correct Yes or No answer as to whether a given object would have been me (in other words, counterfactual identity is real, as seems obvious from my discussion of the first question of counterfactual identity above); (2) identity is precise; there is no vagueness whatsoever; and (3) identity is not random, or, if randomness is unavoidable, there is as little randomness about identity as possible. If these three laws are correct, then there are a few competing answers to the third question:

> *Answer 1.* If the arrangement of matter at the moment that I came into existence had been different in any way, I would not have come into existence. If a person would have come into existence, they would not have been me. My identity is necessarily tied to a specific arrangement of matter, but not a specific location, time, or causal chain.

It seems we can eliminate this answer right away: It seems that the same specific arrangement of matter could occur twice at two different times or locations. But it's impossible for there to be two of me. So my identity can't be tied to *merely* a specific arrangement of matter. And the same goes if we add in *only* time or *only* space. So let's add in *both* time and space:

> *Answer 2.* If the arrangement of matter at the moment that I came into existence, or the location or time of its arrangement, had been different in any way, I would not have come into existence. If a person would have come into existence, they would not have been me. My identity is necessarily tied to a specific arrangement of matter in a specific location at a specific time.

This seems to do the trick. It seems unnecessary to make it even more restrictive (say, by adding that the causal chain leading up to the arrangement of matter must be exactly the same).

6.4. Counterfactual Identity of Objects Ex Nihilo

What about objects that did *not* originate out of prior arrangements of matter? What if, say, God created certain objects *ex nihilo*? Suppose God created a certain particle at a certain location and time. Could God have created that *same* particle in a different location?

Again, I feel the pull toward saying that there is "no particular answer" as to whether some possible particle that God might have created in a different location would have been the same particle as the one that God actually created. But it also seems true that counterfactual identity is real, in which case there *must* be a particular answer.

There is something attractive about the idea that God has some control over identity. Perhaps God could have created a given particle in a different spot, or God could have saved it for later—and it would have been the *same* particle, not just a duplicate. This wouldn't require God to violate any of the three laws of identity. All God would need is an *intention* for a particle to be a certain one. Maybe God could have an identification system for possible particles (Possible Particle #1, Possible Particle #2, etc.) and could make assignments at will by declaration. But although this is attractive, I am just not sure that it works. It seems that identity is something that happens "automatically", not something that it is even coherent for anyone to control.

If God can't determine identity, then it seems best to think that God could *not* have created any particle in a different location than the location God actually created it in. First, there would be nothing that connects, links, or associates that counterfactual particle with the actual one. They don't share a causal history. They don't share an origin point. There seems to be no reason to identify them with each other. It seems that reality would, by "default", have it so that the counterfactual particle is simply a *different particle*. Second, if they *could* be the same, then again, where do we draw the line without being random? How far from the actual origin point is too far for counterfactual identity to hold? And what would determine whether any counterfactual particle is identical to any actual particle, if not a common origin point? Apart from some elaborate ordering system that one might construct, it seems that it would have to be unnecessarily random, which violates one of our above principles.

And so unless God can determine identity, we are stuck with saying that a particle that comes into being *ex nihilo* is necessarily tied to a specific origin point; neither God nor the universe

could have created it even a millimeter away from its actual origin point. This is a strange consequence, but it seems no worse than the alternatives.

6.5. Counterfactual Identity of Infinitely Old Objects

What about objects that are infinitely old? Imagine a particle that has been zooming its way through the universe since eternity past. Could this particle have taken an infinite path that was *entirely different* from the path it actually took? Well, unless God can make it so, it seems the answer will again be No. An infinitely old particle *could have* diverged at any moment a finite duration ago, but the *entire* infinite path could not have been different.

7. Essences

One might wonder whether objects have *essences* that exist indepedently of their instantiations. For example, is there a *Chris essence* that exists regardless of whether I exist? Is there an individual essence for each individual particle?

For example, suppose that God has decided to create a world with exactly one hundred persons, and has decided all of their physical and mental properties, as well as all of their relations to other created things. If there are essences, then it seems God would have to make an *additional* decision as to *which* one hundred essences to instantiate in these one hundred persons, since there are plausibly infinitely many essences to choose from. On the other hand, if there are no essences, then there is nothing left to decide; God simply creates the persons.

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[1] Some philosophers extend the concept of *exact similarity* to include bearing all the same intrinsic *and* extrinsic properties, in which case it is less clear that two objects can be exactly similar and also numerically distinct. See Max Black, "The Identity of Indiscernibles", *Mind* 61.242 (1952): 153-164.

[2] Thanks to William Lane Craig for introducing me to the concept of Euclidean relations.

[3] This appears to assume some sort of physicalism about the mind.

[4] This example is from Michael Rea.

[5] This example is from Peter van Inwagen, *Material Beings* (Cornell University Press, 1990), 241-244.

[6] I owe the ideas and discussion on unity, persistence, and counterfactual identity heavily to Inwagen, *Material Beings*, 167. 'Retainment' is my own term. In the following discussion, I assume for simplicity that I am located in space and that endurantism is true. The presentist will have their own translations of what I am saying, and the perdurantist of course will have a radically different view (see Bandy, "Time").

[7] Here, as van Inwagen points out, the question is not whether something can "appear" to teleport by moving continuously into another slice of a fourth (or higher) spatial dimension and then returning to the present slice. The question is whether something can move from one location to another without following *any* sort of continuous path through *any* spatial dimension.

[8] Unless it is possible for there to be an omniscient being who could "directly" know the truth of the matter. I'm not sure about this.

[9] According to Andrew Moon, this idea is from Trenton Merricks.

[10] I am setting aside even more bizarre and arbitrary positions such as saying that there *is* an explanation for the constant creation and destruction, or that every object in existence is constantly instantaneously teleporting around to various locations in a way that gives the illusion of ordinary motion. (And note how this latter case assumes identity over teleportation.)

[11] See van Inwagen, *Material Beings* and Trenton Merricks, *Objects and Persons* (Clarendon Press, 2003).

Explanation

1. Characterizing Influence

It seems about as obvious as anything that certain things *influence* other things.[1] Things don't just happen in succession and that's all there is to it. There seem to be *connections* of influence between things. (The technical term for influence is *explanatory priority*.) It seems that influence is one of those concepts that is *primitive*: it is impossible, or at least useless, to define it using more basic terms. Any other term we could come up with would be either just as basic or less basic. Therefore, I can only characterize it using some examples:

- The wind *influenced* the forest fire by *making* it spread.
- The ice on the road *affected* the drivers by *making* them more careful.
- I *made* the top spin by flicking it.
- The rock *caused* the window to shatter.
- The city crumbled *because* it got attacked.
- She was *involved in* the birthday surprise.
- God *explains* the universe by *being the source of* it, by *creating* it, by *producing* it.
- He *played a role in* freeing the slaves.
- My mistake *contributed to* the deadly explosion.
- The barometer was *sensitive to* the weather changes.
- I was partially *responsible for* the house flood because I did a crap job building the house.
- President Biden's victory *depended on* the voters.
- The atoms within my skull *ground* the shape of my brain.
- The blueprint *was the basis for* the house.

2. Formal Features of Influence

2.1. Basic Logical Features of Influence

Influence is a *relation* that is *dyadic* and *external*. It is a *relation* because it relates, connects, links, or associates objects to each other. It is *dyadic* because it holds between two objects. It is *external* because it doesn't obtain within the objects in question. If A influences B, that relation of influence doesn't obtain *internally* within A or B; it externally *connects* A and B together.

Of course, the stuff of reality does not seem to be connected in *merely* a very long, linear chain of influence. The stuff of reality seems to be connected in a vast, complex *network* of many chains that often branch and combine. And so there can be *sole* influences (God is the sole cause of the universe), *joint* influences (each of my parents influenced my existence and neither was the *only* influence on my existence), and *common* influences (I shattered three windows and so am a common influence to all three of them). But it seems impossible that there could be a *multigrade* influence that doesn't reduce to a bunch of dyadic influences. For example, it seems

impossible that multiple things could *collectively* influence A without any one of those things *individually* influencing A.

Based on the truth tables, if A influences B, then A is both a necessary and sufficient condition for B, for the simple reason that both of them exist or have existed. Some philosophers might describe influence *solely* in terms of necessary and sufficient conditions, but that doesn't seem right to me; surely there is more going on here; influence contains a sense of *priority* that is not captured by mere logical conditions.

It seems fairly clear that influence has the following four features:

1. *Irreflexive:* Nothing influences itself in the same state; my existence in general doesn't explain my existence in general. My existence at T_1 might explain my existence at T_2, but those aren't the same thing in the same state.
2. *Asymmetric:* Influence goes only one way; it doesn't run in both directions. If a pinprick at T_1 makes me hurt at T_2, my hurting at T_2 does not in any way influence the pinprick at T_1.
3. *Transitive:* If A influences B, and B influences C, then A influences C. If I influence a rock by throwing it, and the rock influences a window by shattering it, then I have influenced the window (albeit indirectly). We thus have a *chain* of influence, where I am earlier along the chain than the shattering is.
4. *Non-Euclidean:* If A influences C, and B influences C, then in *some* cases, A influences B, whereas in *other* cases, A does not influence B. For an example of the former, my dad's dad (Julian) and my dad (Tim) each influenced whether or not I existed in the sense that each of them is one of my ancestors; and Julian influenced whether Tim existed. For an example of the latter, my mom (Alison) and Tim each influenced whether or not I existed, but Alison did not influence whether or not Tim existed; Tim began to exist earlier than Alison, and I don't think influence can travel backward in time.

2.2. Modal Features of Influence

An influence can be *deterministic*, allowing for only one possible outcome (e.g., God determined that Pangaea would split apart) or *indeterministic*, allowing for multiple outcomes (e.g., the conditions of an atom allow for it to either decay or not decay). Because of this, influence can be either a *contingent* or a *necessary* connection. Presumably, my parents *contingently* influence me, since they could have refrained from even bringing me into existence. So if A contingently influences B, then it is possible to have A without B. On the other hand, imagine a perfect boom box that follows this rule: Necessarily, if you press the On button, the boom box drops a sick beat *because* you pressed the On button. In this case, the button-press *necessarily* influences the beat-drop, since the button-press *determines* the beat-drop. So if A necessarily influences B, then it not possible to have A without B.[2] So influence is modal, just like any other relation. But this does not entail that the *concept of influence itself* involves modal concepts. It seems that "A happened because of B" can be true even if modal concepts do not apply to the world.[3]

2.3. Epistemic Considerations about Influence

Note that influence is *inferred* rather than *observed*. As the old saying goes, "Correlation doesn't imply causation". We don't directly observe that A influences B; we simply observe A and B in a certain configuration and infer that A influences B. We *impose* influence on the world.

Is this imposition accurate? I see two main considerations in its favor. First, influence is overwhelmingly, in *every case* of our experience, confirmed. Everything in our experience looks like it either influenced something or was influenced by something. And there is zero evidence that *absolutely everything* in reality is unconnected to anything else. Second, surely our *experiences* had to come from somewhere—they couldn't have just popped into our minds uncaused. But if they *came from* somewhere, then they were influenced by something.

3. Explanation

Influence is as far as I posit, but it's often useful to add more specific concepts such as explanation, causation, and grounding. *Explanation* is a way of talking about how things exist, happen, or are the way they are *because of* other things. If A happens *because* of B, then B explains A. If A exists *because* of B, then B explains A. And so on.

One might think that necessarily, if A influences B, then A also explains B. But this doesn't seem right, at least for certain macroscopic events. Suppose a city is attacked, but the citizens fend off the attack, and so the city ends up safe. Now, the attack is earlier along the chain of *influence* than the city's being safe: the attack kicked off a series of connected events that resulted in the city's being safe. But it seems wrong to say that the city is safe *because* it got attacked.[4] So explanation involves influence, but influence doesn't always involve explanation. And it also looks here that explanation is not transitive, at least when some idealized macroscopic states like "the city is safe" are involved.

4. Causation

The nature of causation—a central topic in metaphysics[5]—involves three groups of questions:

1. What *is* causation? Is it just a primitive connection between two objects? Is it an illusion? Does it reduce to particles moving around and bumping into each other?
2. What are the *objects* involved in causation? Are they events? Particles? States? Agents? Can causes be composite objects? Can causes be non-physical or non-temporal?
3. What is the *extent* of causation? Is it across time, or simultaneous? Can it be timeless? Can it go backward in time? Can it go in a circle? Can it extend through space? Can something *directly* cause something else, or are there always *intermediate* causes?

Here are some types of causation that might obtain in the world:

- *Creation:* some thing or stuff is created such that it begins to exist.
- *Destruction:* some thing or stuff is destroyed such that it no longer exists.
- *Movement:* some thing or stuff is moved through space.
- *Change:* some thing or stuff is changed so that it has different properties.

I define *causation* as influence across multiple moments (whether these moments are all temporal or one of them is timeless). If I throw a rock and it shatters a window, then my throwing influences the shattering; and since my throwing and the shattering are at different moments, then my throwing *causes* the shattering. One might say that each instance of causation *must* be an instance of explanation—mere influence is not sufficient for causation. Ohers might say that mere influence is sufficient for causation.

5. Grounding

I define *grounding* as influence within a single moment. (On my definitions, causation and grounding are the only two types of influence, and they are mutually exclusive.) P grounds Q by being the simultaneous metaphysical *basis* for Q. (Unless P and Q are both timeless, in which case it's not simultaneous.) For example, perhaps there are a bunch of atoms in a certain arrangement, and those atoms *compose* my body. In that case, those atoms *ground* my body. Or, perhaps consciousness *supervenes* on a bunch of atoms if they are arranged like a brain. In that case, those atoms *ground* the consciousness. Or perhaps the fact that a sheet of cloth has *some* color grounds the fact that it is *red*. Or perhaps the fact that I am an American citizen grounds the fact that I am an eligible voter.[6]

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[1] I owe the idea of influence, as well as the network idea, to Nevin Climenhaga and Daniel Rubio, "Molinism: Explaining our Freedom Away", *Mind* 131.522 (2022): 459-485.

[2] Here I disagree with Graham Oppy, in Graham Oppy and Kenneth Pearce, "Is There a God?" (Routledge, 2021), 104, who says that "if P depends on Q, then it is possible to have Q without P" (variables capitalized by me).

[3] Here disagree with Kane Baker, who takes influence to be inherently modal (personal correspondence).

[4] Perhaps on some level—maybe the atomic level—explanation and influence reduce to the same thing.

[5] J. Dmitri Gallow, "The Metaphysics of Causation", *Stanford Encyclopedia of Philosophy* (2022).

[6] Some of these examples are from Graham Oppy, in Graham Oppy and Kenneth Pearce, "Is There a God?" (Routledge, 2021), 113-115. I do not think there is any such thing as grounding. See Bandy, "Physical Objects".

Possibilities

1. Modality

Modality is about what is *possible* and what is *necessary*. Perhaps the future *could* play out one of several ways. Perhaps things *could have* turned out differently than they actually did. I *could* have ended up not writing this essay. My parents *could* have ended up not meeting. By the same token, perhaps certain things *had* to turn out a certain way. If God exists, then God *must* continue existing—it is *impossible* for God to stop existing.

We do not *observe* modality. We see many similar situations and *impose* modality on them. For example, I have flipped many coins. Sometimes the coin lands heads, and sometimes it lands tails. Upon observing these outcomes, one might think that a future coin flip *could* land either heads or tails—that both options are genuine possibilities. Whether they actually *are* genuine possibilities is hard to say for sure. Maybe the outcome of every flip is determined by prior conditions, and so the appearance of possibilities is an illusion.[1]

The modality in question is *metaphysical modality*. Something is *metaphysically possible* just in case it *really could exist*. Something is *metaphysically necessary* just in case it *really must exist* (it couldn't *fail* to exist). Something is *metaphysically impossible* just in case it *really couldn't exist*. Modality can also apply to propositions (e.g., a proposition is necessary just in case it *must* be true) and events (e.g., an event is necessary just in case it *must* happen).

Many philosophers use other scopes of modality:

- *Physical modality*: to be possible is to be consistent with physical laws
  (e.g., nothing travels faster than light)
- *Logical modality*: to be possible is to not have a contradiction as a logical consequence
  (e.g., $p \vee \sim p$)
- *Epistemic modality*: to be possible is to be consistent with the relevant epistemic constraints
  (e.g., "I haven't looked under the bed, so it's *possible* that my keys are there")[2]

But metaphysical modality is the one that captures how things *truly* could be or could have been. After all, *maybe* physical laws could have been different, in which case the current physical laws capture only *some* of the possible ways that things could be. And if physical laws *couldn't* have been different, then physical laws are just identical with metaphysical laws. On the other hand, logical modality allows for some things that are clearly impossible—it's clearly impossible for a prime minister to be a prime number,[3] even though that statement isn't internally inconsistent. In addition, some philosophers believe in contradictions, which means that if we use the language of modality, those philosophers believe in the possibility of something that is by definition "logically impossible". This makes it obvious that we should use more precise language—namely, saying 'consistency' and and 'inconsistency' instead of 'logical possibility' and 'logical

impossibility'. And so in this document, when I use modal terms, I am referring to metaphysical modality unless specified otherwise.

2. Basic Modal Terms and Inferences

Letting '≔' mean 'is defined as':

x is possible ≔ *x* could be true (this is consistent with *x*'s being either true or false)
x is necessary ≔ *x* must be true (*x* cannot be false; this implies that *x* is true)
x is impossible ≔ *x* must be false (*x* cannot be true; this implies that *x* is false)
x is contingently true ≔ *x* is true but not necessarily true (*x* could have been false instead)

These definitions are in terms of propositions, but they could be cashed in terms of objects, events, situations, and so on. For example, if it's contingently true that I exist, then I am a *contingent object*. If it is *necessary* that God acts perfectly, then God's acting perfectly is a *necessary event*. When talking about possibility, we need to be precise: Saying "*x* is a possible object" doesn't mean that *x* exists and has the property of being possible. Rather, it means that there *could* be an *x*.

3. *De Re* and *De Dicto* Modality

De re modality is modality applied directly to an object, independently of how that object is described. *De dicto* modality is modality applied to the truth of a proposition, sentence, or other linguistic item. To see the difference, suppose that numbers exist and that my favorite number is seven but could have been eight. Now consider the following sentence:

> Necessarily, my favorite number is odd.

On a *de re* reading, that sentence might be translated as follows (letting 'is' mean predication):

> There exists an X such that X is my favorite number and X is necessarily odd.

This reading is clearly true. There is an X (the number seven), and seven is my favorite number, and seven is necessarily odd. It is impossible for the number seven to be even.

But now consider a *de dicto* reading of the original sentence:

> The following proposition is necessarily true: 'My favorite number is odd'.

This reading is clearly false, because my favorite number could have been eight. The phrase 'my favorite number' could have referred to something that is *not* odd, and so the proposition 'My favorite number is odd' is not necessarily true, and so the *de dicto* reading is false.

3. Possible Worlds

Philosophers often talk about modality in terms of *possible worlds*, where a possible world is a description of how reality could be or could have been. For example, saying, "There's a possible world in which I was born in Russia" is simply a way of saying that I could have been born in Russia. It doesn't mean that there is an actual world out there that contains a clone of me who was born in Russia.

4. Laws versus Powers

So *why* could things have turned out differently? What about reality allows for these different possibilities? Perhaps there are *laws* that provide these possibilities. Perhaps it is a law that when a uranium atom is placed in a certain environment, there is a 50% chance that it will decay after one second. Or perhaps objects (including agents) have inherent *powers* that open up these possibilities. Perhaps it is a power of a uranium atom to either decay or not decay. It seems implausible that mere abstract laws *constrain* how reality could play out. Rather, it seems best to say that laws are merely *descriptions* of how reality could play out given the powers of things.

5. Fixity

When a loved one dies, there is the intuition that their death is set in stone—there's nothing we can do in the present that would imply that they never died. Their death might not have been *necessary*—perhaps it could have been avoided if we had acted sooner. But now that it has happened, the possibility of avoiding it is closed off. Even if God can resurrect them, it still seems that the *past event* of their death is completely out of anyone's control in any sense.

The term for this is *fixity*: an event is *fixed* just in case there is nothing that can be done in the present that would imply that the event didn't happen. It seems commonsensical to think that the past is *fixed*: there is nothing anyone can do "that would require the past to have unfolded differently than it actually did".[4] By contrast, it seems commonsensical to think that the future is *non-fixed*: we do have control over what happens in the future; it is at least partially *up to us* how things play out.

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[1] Or one might be a modal anti-realist and say that modal language doesn't accurately describe the world at all—it is false that anything could go a certain way, and it is false that anything had to go a certain way; things just are how they are. One might object that modal anti-realism breaks the laws of modal logic, which state that anything that isn't necessarily true is possibly false ($\sim\Box p \leftrightarrow \Diamond\sim p$). But of course, the modal anti-realist does not accept those laws.

[2] This definition is from Brandon Carey, "Epistemic Modality", *Internet Encyclopedia of Philosophy*, https://iep.utm.edu/ep-moda/. Of course, what is epistemically possible depends on the person. For example, it is epistemically possible *to me* that humanity goes extinct—given my uncertainty about things, this might be what happens. But for some conservative Christians, that is not an epistemically possible view, since they are certain that God will prevent humans from going extinct.

[3] Alvin Plantinga, *The Nature of Necessity* (Clarendon Press, 1979).

[4] Wesley Holliday, "Freedom and the Fixity of the Past", *Philosophical Review* 121.2 (2012): 179-207.

Free Will

Free will is characterized as the type of control over our actions that is required for us to be morally responsible for those actions. Most philosophers say that a free action has at least three criteria: the action needs to (i) originate from the agent instead of from some external cause, (ii) be intentionally chosen by the agent instead of being accidently caused, and (iii) be uncoerced. Beyond that, the criteria for freedom are very controversial.

1. Determinism and Indeterminism

There are different types of determinism. In this document I will focus only on *causal determinism*. Thus, when I use the word 'determinism', I always mean 'causal determinism'. With this in mind, to *determine* something is to causally entail it, and *determinism* is the view that everything that happens in the universe is determined by some prior conditions and laws. In other words, those conditions and laws make it so that there's only one way things could go, only one possible way that reality could play out.[1] On *physical determinism*, the initial state of the universe and the laws of nature are the things doing the determining. On *theological determinism*, God is ultimately what's doing the determining.

If determinism is false, then *indeterminism* is true. That means that prior conditions and laws do *not* determine everything that happens. Some events are left up to chance or to free agents, to be determined by them during the course of history. For example, if an agent makes an indeterministic choice between options A and B, then nothing external determines which option they will choose. *They* determine which option they choose. Their choice might be *influenced* by external factors, so that one option is more likely than another. But no external factor makes one option *unavoidable*.

2. Leeway and Sourcehood

Leeway is the ability to do otherwise. If you make a choice that has leeway, then you are able to choose from among multiple genuine opportunities. Whatever option you choose, you'll have been able to choose a different option. Leeway actions can be performed for reasons, as long as those reasons do not entail the choice. If I choose chocolate because I desire chocolate, but I still could have chosen vanilla, that choice could be leeway free. But if my desire for chocolate overwhelms me and makes it impossible for me to do anything but choose chocolate, then my action is not leeway free. The leeway theorist can also accept that all of our actions are significantly influenced by our genes, our upbringing, and our brain states, without accepting that those factors *determine* our choices.

The *principle of alternative possibilities* (PAP) states that free will requires leeway. One might object to PAP as follows: Suppose you give me a choice between vanilla and chocolate. I choose vanilla. However, you have chipped my brain: since I decided on vanilla, the chip did nothing, but if I had started to lean toward chocolate, the chip would have kicked in and forced me to

choose vanilla instead.[2] One might say that my choice was free, since the chip did nothing and so I wasn't manipulated at all throughout the choice—*even though I couldn't have chosen chocolate* and so didn't have multiple options. But this seems to be the wrong diagnosis. I *could* have started leaning toward chocolate. So I *did* have multiple options.[3] Of course, if the chip had blocked my ability to even take that first mental step, then I wouldn't have been free.

Sourcehood is the idea that the agent is the appropriate "originator, source, or initiator of our actions".[4] On sourcehood freedom, the *agent* is the cause of their actions. Prior conditions are not the full cause of the agent's actions.

Some people think that both sourcehood and leeway are necessary for freedom. Others think that sourcehood, not leeway, is necessary for freedom. Those in this latter camp appeal to features of the *actual world* to characterize freedom, rather than appealing to non-actual possibilities. For example, consider a person who makes a choice that is intentional, thoughtful, uncoerced, responsive to rational reasons for action, and directed toward a personal goal. Those who think that sourcehood (but not leeway) is necessary for freedom will take such a choice to be free, even if there were no alternative possibilities; such possibilities are simply unnecessary for freedom.[5]

3. The Three Main Views about Free Will

- *Compatibilism* teaches that free will is compatible with determinism. Compatibilists aren't necessarily determinists. Essentially all compatibilists think that sourcehood is compatible with determinism. A few compatibilists think that leeway is compatible with determinism (but the Consequence Argument below plausibly rules out this view).

- *Libertarianism* teaches that free will is incompatible with determinism, but that people at least sometimes have free will. Thus libertarians are both incompatibilists and indeterminists. Essentially all libertarians believe in sourcehood. Many libertarians believe in leeway.

- *Skepticism* teaches that that no one ever has free will. Some skeptics are determinists and think that determinism and free will are incompatible. Other skeptics are indeterminists and think that indeterminism and free will are incompatible. Other skeptics think that free will is impossible or incoherent regardless of whether determinism or indeterminism is true.

(Essay continues.)

4. The Problem of Free Will

1. If determinism is true, no one ever has free will.
2. If indeterminism is true, no one ever has free will.
3. At least sometimes, someone has free will.

These three claims are mutually inconsistent, which means one of them is false. Which one?[6]

Claim 1. If determinism is true, no one ever has free will.

Consider the *Consequence Argument*: Suppose you are deciding between vanilla and chocolate. Eventually, you choose vanilla. Now, if determinism is true, then your choice of vanilla was causally determined. So were you able to choose chocolate? What would have had to be the case for you to have chosen chocolate? Either the laws of nature or the initial state of the universe would have had to be different than they actually were: they would have had to be such that they determined you to choose chocolate instead of vanilla. But both of those things are completely outside of your control. So it appears that choosing chocolate would have required the impossible. But that implies that you *couldn't* have chosen chocolate. And so it appears that *all* of our choices are merely the consequences of the initial state of the universe combined with the laws of nature. Nothing is up to us.

Obviously, compatibilists reject (1).

Claim 2. If indeterminism is true, no one ever has free will.

Consider the *Rollback Argument*: Suppose you are deciding between vanilla and chocolate. Eventually, you choose vanilla. Now, if indeterminism is true, and your choice was indeterministic, then it was possible for you to choose chocolate. Now imagine that we roll back time and reset the universe to how it was before you made the choice. If your choice was indeterministic, then even though everything about the universe, your body, and your psychology are *exactly the same* as they were the first time around, you might end up choosing chocolate instead. Let's say that this time, you choose chocolate. And then we roll back the clock again, and you choose chocolate again.

After rolling back the clock one hundred times, we observe that you have chosen vanilla 30% of the time and chocolate 70% of the time. Now it appears that whether you choose vanilla or chocolate is just a matter of luck or chance. And we could perform this thought experiment on *any* choice that anyone makes, even morally significant ones, such as whether to betray a friend or remain loyal. But if every choice is just a matter of luck or chance, then it seems that we are not responsible for our actions and so do not have free will.

One might object to the Rollback Argument by rejecting the idea that all of our choices are a matter of luck or chance. If our choices are intentional, responsive to reasons, uncoerced, and

sourced in us, and if we have the ability to choose otherwise, then we are free. The fact that we could have done something different under the same circumstances doesn't undermine our freedom—being able to choose otherwise is just part of what it *is* to be free, under leeway libertarianism.[7]

Suppose that both the Consequence Argument and the Rollback Argument are sound: either all of our "choices" are merely the inevitable consequences of the initial state and the laws and so are not up to us, or all of our "choices" are merely matters of luck outside of our control. In this case, we do not have free will, which means we are not morally responsible for anything we do. After all, we do not have any control over anything we do. Causes and effects merely pass through us, and any sense of agency or responsibility is merely an illusion. Nothing is anyone's fault, and no one is to blame for anything.

Obviously, libertarians reject (2).

Claim 3. At least sometimes, someone has free will.

Surely humans are *sometimes* responsible for what they do. Surely humans are at fault for *some* things. Surely Hitler was at least partially at fault for the Holocaust. Surely Stalin was at least partially at fault for all the murders he ordered. Surely if a friend sends me an irritating text and I respond by going to their house and beating the crap out of their whole family, what I did is *my fault*—I am blameworthy for what I did.

Obviously, free will skeptics reject (3).

5. A Moral Responsibility Argument against Determinism

1. There has been *at least one action* that a person failed to do but *should* have done.
2. If a person *should* do some action, then they *can* do it.
3. Determinism entails that if a person *can* do some action, then they *actually* do it.
4. Therefore, determinism is false.[8]

It is difficult to reject any of the premises. Rejecting (1) requires throwing out virtually all of morality. Rejecting (2) entails thinking that someone can be obligated to do something that is literally *impossible* for them to do. (3) is true simply by the definition of 'determinism'.

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[1] Adapted loosely from David Lewis, "Are We Free to Break the Laws?", *Theoria* 47 (1981): 113-21.

[2] Cases such as these are *Frankfurt-style cases*, introduced by the philosopher Harry Frankfurt in 1969.

[3] Thanks to Philip Swenson for this response. For a full-length critique of Frankfurt-style cases, see Justin Capes, *Moral Responsibility and the Flicker of Freedom* (Oxford University Press, 2023).

[4] Thanks to Joseph Schmid for this wording. See Joseph Schmid, "Avoid These 15 Mistakes about Free Will, Christianity, and Consciousness", *Majesty of Reason Philosophy Podcast* (Podcast, 2024).

[5] Michael S. McKenna, "Assessing Reasons - Responsive Compatibilism", *International Journal of Philosophy Studies* 8.1 (2000): 89-124, in review of John Martin Fischer and Mark Ravizza, *Responsibility and Control: A Theory of Moral Responsibility* (Cambridge University Press, 1998).

[6] The Problem of Free Will, the Consequence Argument, and the Rollback Argument are all adapted from Peter van Inwagen, although he is not the only one to have formulated them.

[7] This response is partially inspired by Timothy O'Connor. See Taylor Cyr and Matt Flummer, "Episode 12: Libertarianism, Part 2 (Agent-Causal) with Timothy O'Connor", *The Free Will Show* (Podcast, 2021).

[8] Formally:

1. $\exists p \exists a\ (\sim Dpa \cdot Spa)$
2. $\forall p \forall a\ (Spa \rightarrow Cpa)$
3. $DET \rightarrow \forall p \forall a\ (Cpa \rightarrow Dpa)$

4.	DET	CPrem
5.	$\forall p \forall a\ (Cpa \rightarrow Dpa)$	MP 3, 4
6.	$Cxy \rightarrow Dxy$	∀ Elim 5
7.	$Sxy \rightarrow Cxy$	∀ Elim 2
8.	$Sxy \rightarrow Dxy$	HS 6, 7
9.	$\sim Dxy \cdot Sxy$	CPrem
10.	$\sim Dxy$	Simp 9
11.	Sxy	Simp 9
12.	Dxy	MP 8, 11
13.	$q \cdot \sim q$	EFQ 10, 12
14.	$q \cdot \sim q$	∃ Elim 1, 9, 13
15.	$\sim DET$	RAA 4-14

Physical Objects

A *concrete object* is an object that participates in causal or explanatory relations with other objects. I divide concrete objects into four categories (I discuss 3 and 4 in "Mental Objects"):

1. *Ordinary objects:* observable physical objects such as tables, chairs, and organisms.
2. *Unobservables:* unobservable physical objects such as electrons, quarks, and black holes, postulated because we can observe their *effects* on observable physical objects.
3. *Souls:* simple, unobservable, non-physical objects that can be conscious.
4. *Qualia:* directly experienced objects such as thoughts, emotions, images, and sensations.

1. Ordinary Objects

Here are seven arguments against the existence of ordinary objects:

① *Vague Boundaries.* Ordinary objects don't have sharp boundaries. If we were to zoom in on a table, we would see that there is no sharp boundary between the table and its surroundings. It's not like ordinary eyesight is the correct way of seeing things. Suppose that my eyesight started improving rapidly, until it got so accurate that I could see every individual quark. In this case, I would no longer see tables or chairs; I would see a chaotic mess of quarks. *This*, it seems to me, is a more accurate way of seeing the world, even though it is useless for normal living. But once we are aware of fundamental particles, it is very implausible to think that some atom is part of a table but the atom next to it is not part of the table. And it doesn't seem that something truly exists if it doesn't have a precise composition or boundary. Moreover, believing in vague boundaries appears to require abandoning classical logic, since a vague boundary entails that for some atoms, it is *neither true nor false* that they are part of a table.[1] To syllogize the argument:

1. If ordinary objects existed, they would have vague boundaries.
2. Nothing can have vague boundaries.
3. Therefore, ordinary objects do not exist.

② *The Problem of the Many.* There are a trillion different collections of atoms that are equally good *candidates* for composing the table. If you assert that some specific collection is the table, then I can add or remove one atom from the edge of your collection, and the new collection is an equally good candidate for the table. If we say that *only one* candidate is a table and none of the others is, then that's completely arbitrary. If we say that *every* candidate is a different table, then we have trillions of different tables, which is obviously not right. So the only non-arbitrary and non-insane answer is to say that *none* of the collections composes a table.

③ *Changing Parts.* Ordinary objects would be constantly changing. A table is constantly gaining and losing particles. At what point does it cease to exist (and a new table takes its place)? Any answer other than "instantly" or "never" is intolerably arbitrary. But if it *instantly* ceases to

exist, then there are trillions of new tables being destroyed and created every second. That's obviously wrong. And if it *never* ceases to exist, then it doesn't cease to exist even if it gets blown to smithereens by a grenade.[2] That's also obviously wrong. But the believer in tables is must either accept one of these two consequences or else have an intolerably arbitrary answer.

④ *Over-Counting.* Ordinary objects involve over-counting. Suppose I have a trillion particles arranged in the shape of a chair. If I also say that a chair exists, then that implies that there are a trillion and one total objects: the trillion particles, and then the chair. But surely there are not a trillion and one total objects. That way of counting is redundant—we shouldn't count the chair, since in counting all the particles, we've already covered everything there is to cover. Surely the only objects that are there are the particles. In that case, there is no chair. We just mentally impose the *concept* of a chair onto reality.

⑤ *Overdetermination.* Ordinary objects involve causal overdetermination. When it appears that a fire is burning some wood, we know there is an underlying physical process, perhaps some atomic process whereby particles are moving around in certain ways. That underlying process accounts for everything there is to know about what's going on, so we shouldn't add a *second* process whereby there is literally a fire burning some wood. The underlying process already takes care of everything that's happening. Adding the second process is overdetermination.

⑥ *Bizarre Existence Conditions.* Certain ordinary objects violate obvious metaphysical laws. Here is such a law: you cannot make some object X cease to exist if you don't do anything that affects X intrinsically; that is, if the only actions you take affect things that are not X. But now consider this: An *island* is defined as "a piece of land surrounded by water".[3] So if you drain away the water, the island ceases to exist, even though you didn't do anything to it; you didn't alter the piece of land at all. This is bizarre. Surely islands do not exist in the first place.

⑦ *The Special Composition Problem.* How could an object even be composed of other objects? Is an object created when two objects come into contact? Clearly not, since if you and I shake hands, that doesn't create a new a object that we might call a "double-human". What about when two objects fasten to each other, or cohere to each other, or fuse together? Again, surely not, since even if you and I get fused together at the hip, that still doesn't create a double-human. What if objects are arranged in an intentional fashion, like a builder constructing a house? No: I can place three pencils on my table in an intentional fashion, but that surely doesn't create a new object. All we're doing is rearranging things that already exist; we're not creating new things.[4]

So it seems we have reason to reject that there are any tables, chairs, organisms, or other ordinary objects. This does *not* mean that tables and chairs are "fake" or "second-class" objects. The view is that *tables and chairs do not exist*. There aren't any tables or chairs, in the same way that there aren't any pegasi. Of course, we can still talk about ordinary objects in ordinary language, but ordinary language is not metaphysically binding here. When I say, "They are a cute couple", I do not mean that two people compose or are identical with some third object called a 'couple'. I just

mean that two people are cute together. When I say, “The sun moved behind the mountain”, I do not mean that the sun moved behind a mountain. I am aware that it only appears so because the earth is rotating. And so it goes with ordinary objects: when I say, “That’s a nice chair”, I’m not saying anything philosophical such as, “Chairs exist”. I’m just saying that I regard as nice whatever physical stuff happens to appear to me as a chair.[5, 6]

One might object that their ordinary intuition toward ordinary objects will automatically outweigh all of the arguments I have presented. For example, if someone sees what appears to be a chair, their intuition that that chair exists will simply outweigh all of my above arguments.

But this seems to be the wrong way to think. Imagine someone saying that, based on their observations, they have strong intuitions that the sun revolves around the earth, or that one hundred birds moving in coordination share a hive mind, or that ChatGPT has personal feelings —and that these intuitions are so strong that they will automatically outweigh any evidence against them. Clearly this is naïve. Clearly there are cases where we should not hold onto such intuitions, even if they are very strong. New information, even if counterintuitive, can provide or fit neatly into a much better explanation of the entire data, and can also explain why, if that better explanation is true, our intuitions misled us to begin with.

2. Unobservables

Note that all the arguments against ordinary objects are really arguments aginst the existence of *anything composed of parts*. So the same arguments will count against all unobservables that are also composed of parts.

What about unobservables that do not have parts, such as fundamental particles? Consider an electron. The wavelength of visible light is thousands of times larger than the size of an electron, so no one can “see” an electron in the ordinary sense of having light bounce off an electron and into someone’s eyes. Electrons are detected by observation of interference patterns—namely, the disturbance of an electric field measured by some device.

Now, electrons are noted as having wave-like properties as well as particle-like properties. But, it seems metaphysically impossible for something to be *both* a wave and a particle. A particle is a discrete, simple, individual object in a particular location. A wave is a pattern of disturbance within a spatial medium of things or stuff.

Plus, whether electrons are conceived of as particles or waves appears to determine whether they *exist*. If “patterns” do not exist, then waves do not exist; the word ‘wave’ is merely a way of describing how things or stuff move. For example, there is no such thing as a “sound wave”, since the term ‘sound wave’ is merely a way of describing (for example) how air or water molecules move. Maybe the particles composing those molecules exist, but the *wave itself*—the pattern of motion—does not. On this view, electrons exist only if they are particles.

Now, "we *do* have … many theoretical models which include the concept of an electron which do a remarkably good job of predicting how things will behave".[7] But can we infer from the *explanatory success* of positing electrons to the *existence* of those electrons?[8] Maybe not. Perhaps scientific theories are merely "useful instruments for systematizing, predicting, and controlling the phenomena"[9] rather than telling us what is out there in the physical world.

On the view that there *does* exist some thing, things, or stuff in the external, physical world, we could use the term 'physical substrate' to refer to this thing, things, or stuff. It seems there are five main options for what the physical substrate might be. First, it might be a single object. Second, there really might be *many* objects that are collectively referred to by the term 'physical substrate'. Third, the substrate might be *stuff*—i.e., infinitely divisible, atomless gunk. Fourth, it might be a quantum state (whatever that is). Fifth, it might be pure information and mathematical structures, in which case there are really no physical objects at all. Whatever the substrate is, our minds somehow manage to perceive it as the familiar, sensible world of ordinary objects.

3. The Problem of Temporary Intrinsics

The *problem of temporary intrinsics*, developed by David Lewis,[10] is a puzzle of how objects can persist through change—i.e., how objects can gain or lose intrinsic properties over time. For example, in the year 2000, I do not have the property of *being heavier than 100 lbs*. But after 2024, I *do* have that property. Shifting our focus away from specific years, it seems, then, that I both have and do not have the property of *being heavier than 100 lbs*. But this is a contradiction. To formalize the problem, consider the following four claims that are mutually inconsistent:

1. After 2024, Chris is heavier than 100 lbs.
2. If (1) is true, then Chris is heavier than 100 lbs.
3. It is false that in 2000, Chris is heavier than 100 lbs.
4. If (3) is true, then it is false that Chris is heavier than 100 lbs.

As discussed in "Time", there are three main views of persistence: *perdurantism*, *endurantism*, and *presentism*. Each has a unique response to the problem of temporary intrinsics.

Perdurantism comes in two main types. The first is *hunk theory*, which teaches that ordinary objects are *hunks*—four-dimensional objects extended through three dimensions of space and one dimension of time. On hunk theory, Chris is a four-dimensional hunk. The hunk theorist will interpret (1) as saying that some of Chris's temporal parts—i.e., the parts after 2024—are heavier than 100 lbs. The hunk theorist will interpret (3) as saying that some of Chris's temporal parts—i.e., the parts in 2000—are not heavier than 100 lbs. And so the hunk theorist will reject (4). Chris—the four-dimensional hunk—weighs more than 100 lbs, even though it's false that each temporal part of Chris weighs more than 100 lbs.

The second main type of perdurantism is *stage theory*, which teaches that ordinary objects are momentary temporal *stages*. No stage at a time is strictly identical with any stage at a different

time. Therefore, strictly speaking, there are *two different* Chrises: a Chris in 2000 and a Chris in 2024. And so (2) and (4) are ambiguous, since they don't specify *which* of the two Chrises they are referring to. If they refer to the Chris in 2000, then the stage theorist will reject (2). If they refer to the Chris in 2024, then the stage theorist will reject (4). If they refer to different Chrises, then the four claims are not actually inconsistent.

Endurantism also comes in multiple types. One type is *adverbial-variant endurantism*. An endurantist of this type will reject (2). Such an endurantist thinks that dropping the adverbial phrase 'After 2024' from (1) is illegitimate and does not preserve truth.

The presentist will reject (4). The presentist agrees with (3), not because the presentist thinks that Chris exists in 2000 and is not heavier than 100 lbs, but because the presentist rejects that Chris even *exists* in 2000 in any sense. And so (3) does not imply that it is false that Chris, a three-dimensional object who exists in 2024, is heavier than 100 lbs.

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[1] The first six arguments come from Kane Baker, "Metaphysics - Ordinary Objects", *Kane B* (YouTube, 2022), and Michael Stevens, "Do Chairs Exist?", *Vsauce* (YouTube, 2021).

[2] Thanks to Peter van Inwagen for this point.

[3] New Oxford American Dictionary.

[4] This entire seventh argument is extremely reduced from Peter van Inwagen, *Material Beings* (Cornell University Press, 1990).

[5] The clarifications in this paragraph are from van Inwagen, *Material Beings*.

[6] One might object that merely *talking* about "ordinary objects" commits one to their existence. But this is no more persuasive than saying that merely *talking* about "the flat earth" commits one to its existence.

[7] See Cort Ammon's answer.

[8] This question is inspired by Kane Baker.

[9] This language is from Kane Baker.

[10] David Lewis, "The Problem of Temporary Intrinsics," from *The Plurality of Worlds* (Oxford: Blackwell, 1986).

Mental Objects

1. Arguments for Souls[1]

1. Personal Beings. It seems that there are personal beings who exist and persist through time—e.g., myself and everyone I know. If souls exist, then we can identify souls with those personal beings, and there is no mystery. But if souls do not exist, then there is no place for personal beings who exist and persist through time. We cannot identify these beings with physical organisms or brains, since there are no organisms or brains. So it seems that without souls, personal beings do not exist.

I am not very persuaded by this argument, since it doesn't seem implausible that personhood is simply an illusion: that our sense of self and identity is merely the result of many different phenomena—sensations, thoughts, emotions—all coming together in a certain way. In the same way that what appears to be a single table is in fact millions of physical particles (or something else entirely), it seems possible that what appears to be a single mind is in fact millions of different mental phenomena.[2] So yes, to put this in ordinary English, I doubt that I exist.

Suppose that souls exist. Then, what are we? Are we souls, as mentioned above? Or are we composite objects, composed of body and soul? William Lane Craig offers the following argument that we are souls. Suppose that Patrick dies:

1. Patrick (before death) is identical with Patrick (after death).
2. Patrick (after death) is identical with Patrick's soul (after death).
3. Patrick's soul (after death) is identical with Patrick's soul (before death).
4. Therefore, Patrick (before death) is identical with Patrick's soul (before death).

(1) and (3) are trivially true if persons and souls persist over time. (2) is obviously true, since Patrick doesn't have a body anymore; all that's left is a soul. That's the only thing Patrick could be. Finally, by transitivity of identity, (4) follows from (1)-(3).

2. The Hard Problem of Consciousness. It seems implausible that rearrangements of non-conscious bits of matter could produce first-person consciousness. Does consciousness just emerge once certain particles end up in a certain configuration or move in a certain pattern? This seems bizarre.

One might object that emergence such as this happens all the time—properties such as heat and liquidity emerge from mere configurations of matter. But as far as I can tell, we can account for heat and liquidity in terms of underlying physical processes and the characteristics of the smaller components. First-person consciousness, on the other hand, seems to be a completely different category that cannot be accounted for in terms of underlying physical processes. Plus, heat and liquidity, understood as experiential concepts, are themselves parasitic on consciousness.

One might ask: how can a *soul* be conscious? If I respond, "It just can; that's one of its inherent powers", then the physicalist could say, "Physical matter just *can* become conscious; that's one of its inherent powers". This might work, but it seems that consciousness is just *not* an inherent power of physical matter. Suppose that the substrate is a plurality of fundamental particles: twelve types of fermions and five types of bosons.[3] The properties of these particles are things such as radius, mass, charge, spin, and so on. These are all "third-person" properties: mundane, numerical values that multiple people can discover by observation and testing. To me, saying that these properties could somehow eventually "add up" to a internal sense of conscious awareness is somewhat like saying that if you keep adding more and more bricks together, they will eventually form a gigantic, living orange. It seems to be a category error or a construction error.[4]

3. Mental Objects. When I look around at the external world, I don't see it *directly*. What I see directly is a visual image caused by chemical processes in my brain. But *what* is this image? It can't be anything physical; it's not like there's a physical image of the world somewhere inside my brain, like a miniature TV in there. But if it's not physical, then it seems implausible to say that mere physical matter can generate non-physical visual images, experienced in a first-person way. On the other hand, a soul can do this if we posit that it has such powers.

4. Near-Death Experiences. In NDEs,[5] people report leaving their bodies, floating around, looking down at their bodies, leaving earth and meeting God, and sometimes having information that they could not have gained if they had stayed in their bodies. This provides strong evidence that human consciousness, though perhaps *usually* hosted by the brain,[6] does not *require* the brain. But, of course, consciousness requires *something*, and so it seems that the simplest thing to posit is an object that is *inherently* capable of being conscious.

2. Arguments against Souls

1. The Interaction Problem. How is the soul supposed to interact with the brain? The brain is physical, but the soul is non-physical. How is that interaction supposed to work? One might take this problem as evidence against souls. However, I do not. I don't see anything wrong in the slightest with saying that the soul just interacts directly with the physical substrate. After all, that's what we say about physical objects interacting with other physical objects.

2. Conservation of Energy. One might object that souls violate conservation of energy, since when a soul interacts with a brain, it inputs new energy into the universe. But I find this objection very weak. First of all, perhaps the soul interacts with the brain by merely collapsing certain quantum indeterminacies in the brain, and thereby actualizes possibilities that could have happened anyway. This requires no addition of new energy. Second of all, even if the soul adds new energy to the universe, so what? We can just say that energy is conserved only under certain conditions—i.e., when there are no intervening factors such as souls.[7]

3. Complexity. Souls add a huge amount of complexity and perhaps arbitrarity to the world, in six ways. First, they inflate our ontology enormously; instead of having a physical world (which is

already complicated enough!), adding souls means adding trillions, perhaps quadrillions, of items to our ontology—not to mention a brand new category of object (non-physical).

Second, we have to specify the properties of these souls. Can they perform all the same tasks that brains do? Do they store memories? Do they lose or gain certain functions when the host brain dies? Are they located or extended through space?

Third, we have to posit that many of these souls are "hooked up" to certain physical collections —i.e., brains—and interact with them in very specific ways.

Fourth, we have to specify when and how souls come into existence. Is it when a brain reaches a certain level of complexity? What causes the soul to come into existence?

Fifth, we have to specify what types of brains have souls. Do all animals and insects have souls? What about worms? What about sea squirts?

Sixth, we have to specify whether and why souls go out of existence. When an organism dies, does the soul just continue on forever in some aether? When a sea squirt tadpole attaches to the sea floor and then digests its own primitive brain, what happens to its soul? Will there eventually be a trillion sea squirt tadpole souls? Can souls get reconnected to brains? Can a soul be transplanted to a new brain? If God destroys my soul and then instantly hooks up a new one to my brain, would the new soul know about it, or would it think that it had been hooked up to that brain all along?

All six of these problems would be instantly solved if we cut out souls and simply say that consciousness emerges from (or is identical to) physical processes. That would give us a nice, clean picture of the evolution of biological life. For all the problems that are resolved by positing souls, it seems they might be *outweighed* by all the problems that are *created* by positing souls.

However, I find the positive arguments slightly more persuasive, so I tentatively accept souls. As for the questions above, I would say: given NDEs, disembodied souls can perform all the tasks that brains can, including storing memories. Any creature with a conscious experience has a soul, which begins to exist at the moment that the creature's brain becomes complex enough to host consciousness. Souls never die, and can in principle be detached and attached to any physical system that can host consciousness. Souls are not extended in space, but perhaps they are located in space, perhaps at an arbitrary point within the brain. I could go either way on this last issue.

3. Qualia

Suppose that some photons hit a tomato, then bounce off and hit my retina, and the retina kicks off a chemical process that results in my seeing an image of a tomato. Does this visual image *exist*? Similarly, when I think about something, does that thought *exist*?

Suppose the answer is Yes. This raises questions. If I open my eyes and perceive a tomato, does a mental image of a tomato get *created*? Is there now one more object in reality than before? Is there a single object for my entire visual field, or is it divided into discrete parts? Is there one object for my *entire* sensory experience, or is there a different object for each sense (one for my visual field, another for my auditory field, another for my olfactory field, etc.)?

Suppose the answer is No. In that case, the brain (and/or the soul) is just behaving in certain ways, and end up "experiencing" in certain ways, but it's not like new objects called 'experiences' get added to reality. It is analogous to how if I stand in my room and jump, that doesn't create a new object called a 'jump'; instead, I just jumped, and that's that.

Although I rejected mental objects for almost two years, I now tentatively accept them. The reason is that if there are no mental objects, I find it very difficult to account for what is going on in everyday experience. When I have a visual image of a tomato, what *is* that image? If it neither exists nor reduces to anything that exists, then how could I be experiencing it? On the other hand, if mental objects *do* exist, then the question is easily answered: I, as a soul, am directly interacting with mental objects which I create and destroy. This is how a soul experiences the world: by creating and interacting with mental objects.

So *what* are qualia, then? If my arguments against composite objects are sound, then qualia must be simple objects. My guess is that just as there is a *physical* substrate at the foundation of the physical world, there is a *mental* substrate for each person, out of which each person constructs their entire psychological experience. The mental substrate is really a plurality of mental objects —thoughts, beliefs, desires, emotions, colors, sounds, tastes, smells, feelings, sensations, intuitions, experiences, and so on.

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[1] For recent arguments for substance dualism, see Brandon Rickbaugh and J.P. Moreland, *The Substance of Consciousness: A Comprehensive Defense of Contemporary Substance Dualism* (Wiley-Blackwell, 2023), Joshua Rasmussen, *Who Are You, Really?: A Philosopher's Inquiry into the Nature and Origin of Persons* (IVP Academic, 2023), and Richard Swinburne, *Are We Bodies or Souls?* (Oxford University Press, 2019). I have not read any of these books, so please do not take my meager thoughts above as representative of these three works.

[2] This idea is partially inspired by Kane Baker.

[3] "Elementary Particle" (Wikipedia).

[4] Thanks to Joshua Rasmussen and Cameron Bertuzzi for this type of point. Rasmussen's appearance on the *Parker's Pensees* podcast provides an excellent starting point.

[5] Titus Rivas et al., *The Self Does Not Die: Verified Paranormal Phenomena from Near-Death Experiences* (International Association for Near-Death Studies, 2016).

[6] I owe the concept of "hosting consciousness" to Kenneth Boyce.

[7] Thanks to William Lane Craig for this idea.

Abstract Objects

Abstract objects are objects such as numbers, sets, equations, propositions, properties, and relations. Abstract objects are typically not in space or time, and typically do not influence or causally interact with other objects.

1. Anti-Realism

I hold to *anti-realism* about abstract objects: they do not exist. Even if two objects are on a table, the number *two* does not exist. Even though it is correct to say "2+2=4", those numbers and equations do not exist; one is correct because one is, in a logically consistent way, abstracting from actual states of affairs—e.g., that having two apples and then taking two more implies having four apples. Even though in a conceivable world in which nothing exists, it is the case that nothing exists, the proposition "Nothing exists" does not exist. Even if I am hungry, I do not possess the property of *hunger*. Even if I am taller than my friend, there is no *taller-than* relation between us. Even using abstract objects as nouns in a sentence does not commit the user to their existence: "My favorite number is seven" doesn't commit me to the existence of *seven* any more than "My favorite mythical beast is the dragon" commits me to the existence of *dragons*.

Anti-realism enjoys at least two advantages over realism: First, it accounts for reality just as well as realism does, but involves fewer commitments. Second, it avoids a theological problem: it seems that some abstract objects, such as the number *one*, couldn't be created by or dependent on God. After all, the very concept of a single God *presupposes* the idea of the number one, and so it makes no sense to say that God creates or explains the number one. But then if the number one exists, God is not ultimate, since there are things that are not explained by God. So it seems better for the theist to say that the number one does not exist.

This is especially true if one claims that God *created* abstract objects. For example, *power* is an abstract object. Suppose that power exists ultimately because God created it. In such a case, God needs some sort of *power* in order to create things. But if that's right, then God needed power in order to create power! But that implies that power existed prior to God creating it, which implies that power existed *before* power existed! This is incoherent.[1]

2. Arguments for Realism

One might object that on anti-realism, most thinking, talking, and reading is meaningless, since "objects of the mind", "objects of speech", and "meaning of books" do not exist.[2] But this seems incorrect, since surely souls can think and talk about things that do not exist. Thinking about a unicorn does not commit one to thinking that either unicorns or "objects of the mind" exist. Similarly, in order to read, one need not interact with an abstract object called 'the meaning of the book'; one need only interpret the physical scribbles that one sees. Similarly, it is meaningful to say things such as "There is goodness in the world", because what one means is not "The abstract object *goodness* exists", but rather "Good things exist in the world". Similarly, it is

meaningful to say things such as "You and I have a disagreement", because what one means is not "The abstract object *disagreement* exists", but rather "You and I disagree".[3]

One might object that on anti-realism, there is no difference between thinking rightly and thinking wrongly, since good and evil do not exist.[4] But this isn't right. There *is* a difference between thinking rightly and thinking wrongly.

Craig and Moreland present two arguments for realism.[5] First is the *predication* argument. Craig and Moreland consider two statements such as "Brick 1 is red" and "Brick 2 is red". They argue that whereas the realist can easily account for the unity of the class of red things (by saying that each member exemplifies *redness*), the anti-realist cannot do so. But this is unpersuasive, since the anti-realist can simply say that Brick 1 and Brick 2 are unified because they are both *red*. The realist might say that the anti-realist cannot account for *how* all the bricks are red. The anti-realist can account for how all red bricks are red by appealing to concrete objects such as photons and retinas (and how they behave).

Second is the *properties-of-properties* argument. Craig and Moreland argue that the anti-realist cannot account for the truth of statements involving properties of properties, such as "Red is a color" (i.e., the property of *redness* has the property of *being a color*). But this seems wrong. Although it is *literally false* to say "Red is a color" (because neither red nor colors exist), that statement is clearly true in a *non-literal* way. Perhaps it can be translated to something like "If a soul experiences *red-ly*, it experiences *colored-ly*".[6] And even if we can't always make translations such as these, one is still not committed to the existence of abstract objects. Perhaps humans are so limited in their cognitive and linguistic skills that they simply lack the capacity to talk without the use of abstract objects. The mere *linguistic* indispensability of abstract objects does not imply their *existence*.[7]

3. Truth Deflationism

If *truth* is a property of propositions, then the anti-realist will deny that truth exists. And so it seems that the anti-realist should take a *deflationary* view of truth, where talk about truth and falsity reduces to talk about how things are; saying that that "The proposition ⟨The cat is on the mat⟩ is true" just reduces to asserting that the cat is on the mat. There are multiple objections to deflationism,[8] but it is hard to see how they are persuasive for the anti-realist.

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[1] I owe this point to Kenneth Boyce.

[2] Thanks to Bradford Thornton for this objection.

[3] One might object that anti-realism is *more* complicated than realism, because of all the extra work it takes to describe and translate ordinary sentences. But as Joshua Rasmussen points out, "the complexity of a hypothesis flows from the quantity of basic components within it, not the quantity of words used to express it", in Rasmussen, *How Reason Can Lead to God* (InterVarsity Press, 2019), 63.

[4] Thanks to Bradford Thornton for this objection.

[5] J. P. Moreland and William Lane Craig, *Philosophical Foundations for a Christian Worldview* (2nd edition, Downers Grove: InterVarsity Press, 2017), 192-196.

[6] The fact that the anti-realist's literal meanings are awkward in 21st-century English does not, at least to me, count at all against anti-realism.

[7] William Lane Craig, in "EPS Panel Discussion | 'Craig's Nominalism and the Atonement'", *ReasonableFaithOrg* (YouTube, 2021).

[8] Daniel Stoljar and Nic Damnjanovic, "The Deflationary Theory of Truth", *Stanford Encyclopedia of Philosophy* (2010).

Parts and Wholes

1. The Basics of Mereology

Mereology is the study of parts and wholes. It is intuitive to think that my hand is a part of my body, or that a brick is a part of a house, or that some air molecules are parts of the atmosphere. As a technicality, everything is considered to be trivially a part of itself. This trivial species of parthood is *improper parthood*. By contrast, *proper parthood* is the ordinary species of parthood, whereby the part and the whole are not one and the same thing. And so my body is an *improper part* of my body, and my hand is a *proper part* of my body. But, generally speaking, both my body and my hand are parts of my body. Parthood is thus a binary relation—i.e., a relation between two objects: the part and the whole (again, the part and the whole might simply be one and the same thing). Proper parthood has the following three features:

- *Irreflexive:* Nothing is a proper part of itself.
- *Asymmetric:* If X is a proper part of Y, then Y is not a proper part of X.
- *Transitive:* If X is a proper part of Y, and Y is a proper part of Z, then X is a proper part of Z.

As an example of transitivity: if some atom is a part of one of my cells, and that cell is a part of my body, then that atom is a part of my body.

For some objects to *overlap* each other is for them to share a part in common. To put it formally, X and Y overlap if and only if some thing Z is both a part of X and a part of Y. Given that a part can be either proper or improper, there are four ways in which X and Y can overlap:

1. Z is both an improper part of X and an improper part of Y. (X is identical with Y.)
2. Z is an improper part of X and a proper part of Y. (X is a proper part of Y.)
3. Z is a proper part of X and an improper part of Y. (Y is a proper part of X.)
4. Z is both a proper part of X and a proper part of Y. (X and Y each have multiple proper parts, but they share Z as a common proper part.)

Another important mereological concept is *composition*. It is intuitive to think that some bricks can compose a house, or that some cells can compose an organism. To put it simply, every object that has parts is *composed of all and only those parts*. We can thus characterize parthood and composition in terms of each other:

> the Xs compose Y if and only if
> every X is a part of Y, and
> every part of Y overlaps one of the Xs.[1]
>
> X is a part of Y if and only if
> X is one of the things that compose Y.

2. The Three Main Types of Views

The *special composition question*, developed by Peter van Inwagen, is the question, "Under what conditions do some things compose another thing?" There are three main types of views:

Nihilism: Whenever there are two or more Xs, the Xs do not compose anything. There are no composite objects (objects with proper parts); every object is a *simple* (an object with no proper parts). The only instances of parthood are instances of *improper* parthood—i.e., identity. Therefore, there are no tables, chairs, rocks, organisms, or any other composite objects.

Universalism: Whenever there are two or more Xs, the Xs compose something. Any two objects compose a third object; any three objects compose a fourth object, and so on. Thus there exist ordinary objects such as tables and chairs, but there also exist bizarre objects such as "trogs" (objects composed of at least one tree and at least one dog) and "Neiffels" (object composed of at least one nose and the Eiffel tower).

Restrictivism: In some cases involving two or more Xs, the Xs compose something; in other such cases, the Xs do not compose anything. This is the commonsense view, since it allows for ordinary objects to exist without also requiring bizarre objects to exist. The challenge is knowing exactly where to draw the line. And so the special composition question is not solved: "In exactly *what* cases involving two or more Xs do the Xs compose something?"

3. van Inwagen's Argument against Universalism

Peter van Inwagen's argument against mereological universalism is based on the idea that a person is constantly recycling their parts—the set of simples that compose me is constantly changing its membership. All the atoms that were part of me ten years ago have since left my body and scattered away. But virtually all forms of universalism state that if some things (call them 'the Xs') compose some object (call it 'Y') at some moment, then the Xs compose Y at *every* moment at which the Xs exist. Hence the argument:[2]

1. I existed ten years ago, and I exist now.
2. If I existed ten years ago,
   then ten years ago, I was composed of some simples (call them 'the Xs').
3. If, ten years ago, I was composed of the Xs, and I exist now,
   then if universalism is true, the Xs compose me now.
4. The Xs do not compose me now.
5. Therefore, universalism is false.

The universalist who is a hunk theorist can easily resist this argument. They will take the Xs to be four-dimensional hunks that existed ten years ago. (Perhaps those hunks were extended through the entire year, or only a few months—it does not matter.) Those Xs do *not* still exist

now. And so the hunk theorist will reject (3). Note that this is consistent with statement that if the Xs compose Y at some moment, then the Xs compose Y at every moment at which the Xs exist.

Obviously, the universalist who is a substance dualist will simply reject (2).

4. The Problem of Temporary Parts

The *problem of temporary parts*, developed by Mark Heller,[3] is a problem concerning the identity of an object after it loses one of its parts. Let 'Body' be the name for my body, and let 'Partial' be the name for the physical object that occupies the same space as my body *except* for the space occupied by my left hand. Obviously, Body and Partial are not identical with each other, since they are different sizes: Body is slightly larger than Partial. But suppose that, in 2023, my left hand is chopped off and disintegrated. Suppose that it is no longer a part of Body. After this incident, Body and Partial now occupy the exact same region of space. But surely two *different* physical objects cannot occupy the exact same region of space. It is more reasonable to think that Body and Partial are identical—i.e., that "they" are really just one and the same object. But this contradicts our earlier statement that Body and Partial are not identical. To formalize the problem, consider the following four claims that are mutually inconsistent:

1. In 2000, Body was not identical with Partial.
2. If (1), then Body is not identical with Partial.
3. In 2024, Body is identical with Partial.
4. If (3), then Body is identical with Partial.

Hunk theory, strictly speaking, rejects (3). On hunk theory, Body and Partial are two distinct four-dimensional hunks. They are not identical; rather, Partial is a spatiotemporal part of Body. Partial is not extended through spacetime as much as Body is, since Partial is not extended through the region of spacetime occupied by Body's hand after the year 2023.

The hunk theorist, however, might *interpret* (3) as saying that the temporal part of Body that is extended through the year 2024 is identical with the temporal part of Partial that is extended through the year 2024. The hunk theorist will accept this. But then, on this reading, (4) is false: the fact that Body and Partial share some temporal parts does not imply that Body and Partial are one and the same object.

The mereological nihilist will reject (3) as well, though for a different reason. The mereological nihilist does not believe that either Body or Partial exists at all.

The organicist will reject (3) as well, though for a yet different reason. The organicist believes that Body exists, but does *not* believe that Partial exists.

[1] van Inwagen adds a third condition: no two of the Xs overlap.

[2] Peter van Inwagen, *Material Beings* (Cornell University Press, 1990), 74-79. I have adapted van Inwagen's argument to make it clearer, simpler, and deductively valid without the use of hidden premises.

[3] This is my name for the problem described by Mark Heller, "Temporal Parts of Four-Dimensional Objects," in *The Ontology of Physical Objects* (Cambridge: Cambridge University Press, 1990), ch. 1. I have adapted Heller's problem in order to make it clearer, simpler, and plainly inconsistent.

Time

1. What is time?
2. Does time have a direction?
3. Is there an absolute present?
4. Is time continuous or discrete?
5. What is it to be temporal?
6. How do things persist through time?
7. How do things start and stop existing?
8. Do the past and future exist?
9. Are the past and future symmetrical?
10. Did time begin? Will time end?

1. What Is Time?

Time is clearly not an ordinary object such as a table or chair. Rather, it seems that we use the word 'time' as a way to describe one of the most obvious features of reality: things don't merely *exist*—they *persist*. I existed yesterday, and I exist now. I have *persisted*. In addition, things *change*. I was on my bike, but now I am not on my bike. I have *changed* in some way.

We can use the word 'moment' to refer to a certain way things are—a complete description or snapshot of reality.[1] There is a moment in which I am on my bike. There is a moment in which I am not on my bike. These two moments are contradictory, and so they cannot be the *same* moment. Therefore, they must be *different* moments. So there are multiple moments, and it seems that they are arranged in a linear series. Given all this, we can define *time* as "the dimension along a series of moments".[2] Whether this series is an actual object—perhaps even a *physical* object—or whether talk about a "series of moments" is merely a helpful convention for talking about change is a separate question that will be discussed later.

2. Does Time Have a Direction?

A series of moments allows for some things to be *between* other things. The moments with George Washington are *between* the moments with Caesar and the moments with Ronald Reagan.[3] We can now add an additional, obvious belief: time has a *direction*. It seems that this direction generally corresponds with explanatory priority: time is directed from the *explanatory prior* to the *explanatory posterior*. And so something is *earlier* if it is farther in the explanatory prior direction, and something is *later* if it is farther in the explanatory posterior direction. Now we can say that the moments with George Washington are *later* than the moments with Caesar and *earlier* than the moments with Ronald Reagan.

3. Is There an Absolute Present?

There are two types of statements involving time. The first type are *tenseless* statements: "Reagan becomes president in 1981", or "Reagan becomes president after Caesar dies". The second type are *tensed* statements: "It is 1 PM", or "Reagan *became* president in the past". Tenseless statements do not assume that there is an absolute present. Tensed statements do assume that there is an absolute present.

To understand the idea of an absolute present, ask yourself: "Is it an *absolute* truth that Reagan *became* president in the past?" One might say Yes: it is an absolute truth that Reagan became president in the past. Nothing needs to be added or qualified—it is just *true*. The absolute present is 2023 or later, and so 1981 is in the absolute past. This is a *dynamic* view of time, since things really do *change*—figuratively speaking, the absolute present is constantly moving forward.

One might say No: it is true *only relative to us*. From *our* perspective, Reagan became president in the past. But from the perspective of someone in 1979, it is false that Reagan became president in the past. The statement that is *absolutely* true is "Reagan becomes president in 1981". And so time is just like another dimension of space. There is no location in space that is *here* independent of anyone's perspective. The word *here* simply refers to whatever location the speaker is at. Similarly, there is no moment of time that is *now* independent of perspective. The word *now* simply refers to whatever moment the speaker is at. This is a *static* view of time, since things don't really *change*—there are just different things located at different moments.

The tensed view seems to be the commonsense one. 1980 is *really* in the past—not just for me, but in the past "full stop", independent of anyone's perspective. One of my most basic intuitions is that time really does pass; things really do change, and I'm not aware of any defeaters for this.

One argument for the tensed view is that some tensed facts cannot be reduced to tenseless facts. For example, suppose I know the tenseless fact ⟨I need to leave at noon for the concert⟩. How am I supposed to know whether to leave? It seems impossible for me to know this unless I also know what the *absolute present time is*. I need to know the *tensed* fact ⟨It is noon⟩ in order to know that I'm supposed to leave. But if there are irreducible tensed facts, then time is tensed.[4]

But this seems wrong. I don't need to *know* the tensed fact ⟨It is noon⟩ in order to be motivated to timely action. I merely need to *believe* ⟨It is noon⟩ to be motivated to act. The mere belief is sufficient. If I believe ⟨It is noon⟩, then I will be motivated to get up and leave so that I don't miss the concert. If the passage of time is an illusion, then what I take to be the tensed fact ⟨It is noon⟩ *in reality* reduces to the tenseless fact ⟨It is noon at the time of this thought⟩, even if I'm unaware of this reduction. And the term ⟨this belief⟩ need not mean the tensed term ⟨the belief that I have now⟩; it can tenselessly pick out a particular belief of mine from along the timeline.

We can draw an analog with space. The mere *belief* that "The concert is across the street" is sufficient to motivate me to move across the street, because if I just stand still, I won't make it to

the concert. This doesn't imply the existence of a "here" independent of perspective. My belief reduces to "The concert is across the street *from my perspective*". Similarly, the mere belief that "The concert is in five minutes" will inform me that I need to go to my concert in five minutes. This doesn't imply the existence of a "now" independent of perspective. My belief reduces to "The concert is in five minutes *from my perspective*".

4. Is Time Continuous or Discrete?

Do things change in *discrete*, finite increments of time? Does reality run at, say, a quadrillion frames per second? Or is change *continuous*, such that any motion can be divided indefinitely into shorter and shorter segments—between any two moments, there is another moment?

It seems that the continuous view is more plausible.[5] If time were discrete, then at least some moments would have a finite duration. For example, if reality runs at a quadrillion frames per second, then it takes a quadrillion moments to fill up one second. Assuming that all moments have equal duration, each moment is exactly one quadrillionth of a second long.[6] But this idea of a moment having a duration is very odd. Does reality just sit there for one quadrillionth of a second, and then suddenly jump to the next moment? What makes reality jump to the next moment? Why does it jump consistently every quadrillionth of a second, instead of faster or slower? This is arbitrary. In addition, it is logically consistent for something to happen *halfway* through a moment with a positive length. Since it's logically consistent, why wouldn't it also be possible? It seems that for any duration, it is possible for something to happen halfway through it. But that means that time is continuous.

A second argument for continuous time is that discrete time involves constant teleporting. If an object is in motion, but it can only move in an instant once a new discrete moment of time elapses, then the only way for that object to get anywhere is for it to *teleport* to the new location! But surely all objects are not constantly teleporting. The discrete temporalist can avoid the teleportation charge by saying that *space* is also discrete, but now they have reduplicated the problems discussed in the previous paragraph, but for space. So it seems best to say that time *and* space (and motion) are continuous.

One might object as follows: On continuous time, every segment of time is composed of infinitely many moments. That means that each of these moments has a duration of *zero*. Now, in order to have change, you need moments that are *successive*—i.e., right next to each other, so that the second moment happens right after the first. But if two successive moments both have a duration of zero, then the second moment happens *zero seconds* after the first moment, which isn't really "after" at all—it's just *at the same time* as the first moment, and so those two moments are actually *simultaneous*. So continuous time implies that moments are both successive and simultaneous, which is a contradiction.

I reject both horns of the dilemma. No two moments are *either* successive or simultaneous. This is because on continuous time, no two moments are right next to each other, because there is

always another moment between them. For any two moments, there is a third moment between them.[7] And so it is impossible for any two moments to be either successive or simultaneous. Sure, some moments are *after* or *before* other moments, but no moments are *directly* after or before any other moments. And so I reject that successive moments are needed to have change.[8]

4.1. Implications of Continuous Time

If time is continuous, then some other features of reality are probably also continuous:

- *Space and Motion.* These were already discussed above and will not be repeated. One might ask, "If motion is continuous, then how can two different objects move at different speeds?" Well, they just do! There's not much else to say. Suppose that two particles are traveling at constant speeds: the first at 1 m/s and the second at 2 m/s. Within any interval of time, no matter how short, the second particle moves twice as far as the first particle.

- *Causation.* Within time, there is never any *direct* causation. If any state causes some later state, then there is always some state *in between* them; and so causation is always indirect. Causation is then in a sense continuous: no matter how much you zoom in, you can always find causes and effects that are closer together; there will always be intermediate causes between any cause and its effect. Of course, if we carve up time into discrete, finite, successive events, we can speak *as if* there were direct causation among those events. But of course, such boundaries are merely artificial: in reality, there are no discrete, finite, successive events.

- *Free Will.* Since temporal causation is necessarily indirect, even temporal persons with free will cannot directly cause anything. Here is a sketch of a model of indirect free will, which I call the "two-windows" model: if I'm in a situation where I can act freely, then there is a finite duration of time in which I am *able* to choose between multiple options, and there is a finite duration of time in which I intentionally make the choice. I call these durations the "window of opportunity" and the "window of decision". These don't have to be discrete or successive; they could be overlapping. As far as I can tell, this is good enough for freedom.

- *Indeterminacy.* Certain indeterministic processes might be continuous. Imagine a particle taking a winding path through space. For any segment of that path, there is some probability that the particle could have strayed from its path. Now, as you zoom in to shorter and shorter segments, the probability of straying gets smaller and smaller (in addition to, perhaps, the *amount* by which it could stray, which could simply be the maximum number of *degrees* by which it could change directions). If you zoom all the way in to any particular instant (i.e., a "segment" of length zero), then the probability of straying is zero.

One might object: Consider a computer that can randomly generate *any* natural number. Such a generator would need to consider infinitely many numbers before selecting one. That would require infinite computing power, which would either require an infinitely dense computer (impossible) or an infinitely large computer wherein the speed of information is infinite

(impossible). But then surely it's impossible for a particle to select from an infinitely fine-grained range of directions to move. Such a particle would require infinite computing power.

This is super interesting, but I don't find it persuasive. The number generator would need infinite computing power because computers by nature process things discretely—namely, with ones and zeroes. It would, of course, take infinitely many ones and zeroes to represent every natural number. But I don't see why a particle would need to "process things discretely", and so I don't see why a particle needs infinite power to move in one of infinitely many directions.

5. What Is It to Be Temporal?

What is it to be temporal (or "in time")? What distinguishes temporal things from things that are timeless (or "outside of time")? Given my definition of 'moment' as simply a description of how things are, it seems that *everything* is part of a moment. So if we defined 'temporal' as 'being within a moment', then *everything* would be temporal. But this seems wrong, since surely some things are not temporal, if they exist at all: numbers, equations, logical laws, and perhaps God.

So rather, I define 'temporal' as 'being within a moment that is within a *series* of moments'. The moments in such a series are *linearly connected* to each other in some way—perhaps by explanatory relations. So since I exist within the present moment, and the present moment is within a *series* of moments, then I am temporal. The number *seven*, if it exists, is within a moment (since it is part of how things are). But that moment is not within a series; it is isolated. And so the number seven—as well as all the other abstract objects, if they are also within isolated moments—is timeless.

6. How Do Things Persist through Time?

What is it for an object to *persist*—i.e., to continue to exist from moment to moment? The answer depends on one's view of the *ontology* of time. The two main views on the ontology of time are *eternalism* and *presentism*. Eternalism states that there is a four-dimensional object, *spacetime*, which has three spatial dimensions and one temporal dimension; thus, the past, present, and future all exist as parts of this object. Presentism states that only the present moment exists; the past and future do not exist.

Within eternalism, there are two views regarding how objects persist through time. *Endurantism* is the view that objects persist through time by *enduring*—that is, by wholly existing at every moment of time at which they exist. *Perdurantism* is the view that objects persist through time by *perduring*—that is, by being extended through time such that they have spatiotemporal parts. On perdurantism, objects are *four-dimensional:* they are extended through three dimensions of space and one dimension of time.

Let X be a given object. A *spatiotemporal* part of X is an object that occupies a spacetime region that is entirely within (but smaller than) the spacetime region that X occupies. For example,

supposing my body is a four-dimensional object extended through time from 1998 to 2088, a spatiotemporal part of my body would be the "chunk" of it that extends from 1998 only to 2058. This chunk would more specifically be a *temporal* part of my body, since it occupies all the space that my body occupies during every time at which they both exist, but it is not extended through as much time as my body is extended through. Another spatiotemporal part of my body would be the "chunk" of it that is only my hand, which is itself a four-dimensional object extended from 1998 to 2088. This chunk would more specifically be a *spatial* part of my body, since it is extended through all the time that my body is extended through, but it does not always occupy all the same space that my body occupies.

Presentism teaches that objects, strictly speaking, do not persist "through" time at all. On presentism, there is nothing to persist through, since only the present moment exists. Rather, the presentist can make statements such as 'objects exist now', 'objects have been existing', 'objects formerly existed but no longer exist', 'objects will exist', and so on.

7. How Do Things Start and Stop Existing?

The terms 'begin', 'begin to exist', 'have a beginning', 'come into being', and 'come into existence' are somewhat ambiguous, and sometimes (but not always) used interchangeably. The same goes for the parallel terms for endings: 'end', 'cease to exist', 'have an end', and so on. Therefore, instead of using these terms, I introduce two new terms that I precisely define:

- *Generation:* There is a moment at which *x* does not exist. Later on, there is a moment at which *x* exists. For example, there was a moment at which I did not exist. And at this moment, I exist. Thus, I *generated* between then and now.
- *Initiation: x* exists at the first moment of time. For example, suppose that spacetime began at the big bang. In this scenario, the universe *initiated*.

I introduce two terms that are parallel with 'generation' and 'initiation':

- *Corruption:* There is a moment at which *x* exists. Later on, there is a moment at which *x* does not exist. For example, when I die, I might stop existing either temporarily or permanently. If this is right, then when I die, I also corrupt.
- *Completion: x* exists at the last moment of time. For example, suppose that spacetime will eventually contract in on itself and cease to exist. In this case, the universe will *complete*.

8. Do the Past and Future Exist?

- *Eternalism* is the view that the past and future are just as real as the present. Things that are three seconds in the future are just as real as things that are three inches away.
- *Presentism* is the view that only present things exist. The past no longer exists, and the future does not yet exist. My grandfathers *formerly existed* on this earth, but now they do not exist on this earth in any sense.[9]

Let's examine these two views. Suppose first that there is no absolute present. In that case, presentism can't be correct, because presentism asserts that there is a present moment. On the other hand, eternalism fits nicely with a static theory of time.

Now suppose there *is* an absolute present. If we combine that with eternalism, we can illustrate the passage of time by imagining the four-dimensional spacetime as a block, and imagining a spotlight that illuminates only a single moment—i.e., a three-dimensional slice—of spacetime. The spotlight is constantly moving to later and later moments. This is the *moving spotlight* view.

This view has at least two problems. First, it entails that there are people in the past who think they are in the present. Reagan exists in 1980 and thinks that he is in the present. But he is wrong, since he is in the past. In fact, almost *everyone* throughout history is wrong, since almost every person is in either the past or the future. But then how do *we* know that we aren't in the past or the future? The moving spotlight view seems to motivate us to think that we aren't in the present, which is very counterintuitive. Surely if there *is* an absolute present, we're in it!

Second, the moving spotlight view is contradictory. When the absolute present is 1980, the segment of spacetime occupying the year 1980—call this the '1980 slice'—has the property of *being present*. But when the absolute present is 2000, the 1980 slice does not have the property of *being present*. So the 1980 slice both has and does not have the property of *being present*.
One might object that the 1980 slice *changed* from *being present* to not *being present*. But this would be mistaken. The 1980 slice by definition extends only throughout the year 1980. Therefore, throughout all of its existence, it always has the property of *being present*. Once the year 1980 ends, the 1980 slice doesn't change to not *being present*; it simply ceases to exist.[10]

On the other hand, presentism fits nicely with a dynamic view of time. So if there is an absolute present, it seems we should adopt presentism. I accept presentism for four reasons: (1) I have the intuition that time is dynamic. (2) I have the intuition that I *persist* through time. I used to exist, and I still exist now. On dynamic presentism, this is correct. But on static eternalism, it is wrong, since I am really just a static four-dimensional subset of the four-dimensional spacetime. I am a *spacetime worm* that is extended through time and space. So it's not true that I used to exist—instead, *earlier time-slices of me* exist at earlier moments of spacetime. This is very counterintuitive. (3) I have the intuition that the past and present just *don't* exist. My future children (if I have any) simply *don't* exist yet, in any sense.

(4) Surely there is genuine causation. Imagine a ball that is hit with a hammer and becomes dented. On eternalism, there exists a series of ball-stages: some undented stages, some stages in contact with the hammer, and some dented stages. Let S_1 be a stage in contact with the hammer, and let S_2 be a dented stage. Why is S_2 dented? On eternalism, the answer is that S_1 was hit with the hammer. But why would that matter? S_1 and S_2 are two different objects existing at different times. Why would S_1's getting hit affect S_2? It seems we should instead say that *the ball* is dented because *it* got hit at an earlier time, and that *it* has continued to wholly exist since then.[11]

9. Are the Past and Future Symmetrical?

1. Symmetrical Language about the Past and Future

As Alex Malpass points out, logical tense is *symmetrical*: for every tensed proposition, there is a "mirror" proposition with the exact opposite tense.[12] For example:

- ⟨*x* happened⟩ is the mirror of ⟨*x* will happen⟩. Simple past and simple future are mirrors.
- Future perfect tense—⟨*x* will have happened⟩—also has a mirror, but contrary to first glance, it is not past perfect tense. The proposition ⟨*x* will have happened⟩ means ⟨There will be a moment after *x* happened⟩. One might try to mirror this proposition by mirroring only the first half of it, to produce the past perfect tense: ⟨*x* had happened⟩ or ⟨There was a moment after *x* happened⟩. But this is mistaken. A true mirror of the proposition would mirror *both* halves. The true mirror of the original proposition is thus ⟨There was a moment before *x* happened⟩.

Should this symmetry of tense be used when speaking about the past versus the future? For example, suppose that time is both past-eternal and future-eternal. In this case, the following proposition is obviously true: ⟨Infinitely many days passed before today⟩. But what about the proposition: ⟨Infinitely many days will pass after today⟩?

William Lane Craig argues that this second proposition would be false. Craig says that infinitely many days will never pass; the number of days passed after today will always be finite. There will never be a moment at which the number of days passed after today is infinite.[13] But Craig is obviously switching from future perfect tense to simple future tense.[14] True, there will never be a moment at which the number of days passed after today is infinite. That's just to deny the future perfect tense proposition ⟨Infinitely many days *will have passed* after today⟩. But that's a different proposition from the simple future tense proposition ⟨Infinitely many days will pass after today⟩! I see no reason to think that the falsity of the former implies the falsity of the latter. Given the symmetry of tense, and the obvious truth of ⟨Infinitely many days passed before today⟩, it seems to me that we should also accept the truth of ⟨Infinitely many days will pass after today⟩, assuming that time is both past-eternal and future-eternal.

This seems plausible. For example, I believe that if Christianity is true, then I will be in heaven forever. The proposition ⟨I will be in heaven forever⟩ translates to ⟨I will be in heaven for

infinitely many days⟩. The falsity of ⟨I will have been in heaven for infinitely many days⟩ does not count against the truth of ⟨I will be in heaven for infinitely many days⟩. Sure, in everyday language, a simple future-tense statement implies the future-perfect–tense analogue (especially since we usually only talk about finite durations). But here we are dealing with technical language, and so surely we should accept that positive simple future tense—understood as the mirror opposite of simple past tense—can be applied to an endless future. Infinitely many days *will* pass after today—but it will just take infinitely long for that to happen![15]

2. Metaphysical Symmetry of the Past and Future

Now, does the symmetry of tense imply a *metaphysical* symmetry between the past and the future? Clearly not. Someone could be a growing block theorist. However, Schmid, Malpass, and Morriston argue that one of Craig's arguments against an eternal past cuts equally well against an endless future, which would be bad for Craig's view of the afterlife.

Craig argues that an actual infinite (a set of items that can be paired one-to-one with the natural numbers) cannot exist. Since, for Craig, an infinite series of past days counts as an actual infinite, the conclusion is that the series of past days cannot be infinite. Therefore, time had a beginning.

Now, Malpass et al. argue that, on Craig's view, the *future* also counts as an actual infinite, and so therefore Craig's argument implies that the *future* cannot be infinite either; time will have an end. One might reply on Craig's behalf that since the future doesn't exist, it cannot count as an actual infinite. But this won't work, since Craig is a presentist: for him, the past doesn't exist either, and yet it *would* count as an actual infinite if it were eternal.

Craig seems to respond that only things that are either *actualized* or *have been actualized* can add up to an actual infinite.[16] The present and the past fit this criterion, but the future does not, since it has not been actualized. Therefore, for Craig, an eternal past would count as an actual infinite, whereas an endless future would not.

10. Did Time Begin? Will Time End?

Did time have a beginning, or does it "go back" forever and ever into the past? There are at least three possibilities:

- *Beginning*: Time began with a first moment that had an initial boundary. Time abruptly began running similar to how it runs today. The first moment was just like any other moment, except *that there wasn't anything before it—not even empty space.*
- *Non-Metric Initial Moment*: The first moment of time did not have an initial boundary. Thus, the first moment was indeterminately long. This moment ended simultaneously with the first instance of change, at which point time began to proceed metrically (i.e., with determinate lengths).[17]

- *Past-Eternal*: Time never began. It has been running forever and ever. For every arbitrary duration of time, there was an equally long duration before it.

One might argue for a fourth option, a *dense regress*: time contains an infinite regress of moments, but the earlier in time, the shorter the moments, such that the regress converges to some point only finitely long ago.[18] But this view is contradictory. Consider this point in time to which the regress converges. There must be a moment of time that overlaps it (otherwise, it would be located before the regress, and so would be a point in time that occurred before there was any time, which is contradictory). Moreover, exactly *one* moment of the regress must overlap this point (since no two moments in the regress overlap). But there is no first moment in the regress, and so there is no moment that overlaps the initial point.

We can also ask the parallel question about the future: will time ever come to an end, or will it continue on forever and ever? Similar to the past, one could delineate three options: an end, a non-metric final moment, and future-eternity.

A more controversial question is whether an endless future is (or will be) *infinitely* long. If time will continue endlessly, will infinitely many years pass after today? Let 'the future' be defined as 'the set of all the events that will happen'. Now consider the year 2026, which is one of the years that *will happen*. In an endless future, 2026 is followed by 2027, which is followed by 2028, which is followed by 2029, and so on, without end. Now, something is *actually infinite* if its members can be put into a one-to-one correspondence with the natural numbers. An endless future meets this sufficient condition. The years that *will happen* (2026, 2027, 2028, …) can be put into a one-to-one correspondence with the natural numbers: 2026 corresponds to 1. 2027 corresponds to 2. 2028 corresponds to 3. And so on. For every unique natural number, there will be a unique year. So an endless future is infinitely long.[19]

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[1] Adapted from M. O. Fiocco, "What Is Time?", *Manuscrito* 40 (2017): 56, who, according to R. T. Mullins, defines a *moment* as "the way things are but could be subsequently otherwise". See Mullins, "The Divine Timemaker", *Philosophia Cristi* 22.2 (2020): 215.

[2] On my definition and view, *time* and *moments* are abstract objects and so do not exist. All talk about time and moments ultimately reduces to talk about the objects themselves that persist and change. So "Reagan existed in some past moment" reduces to "Reagan existed". Similarly, "The moment containing Washington explains the moment containing Reagan" reduces to "Things happening at the time of Washington *explained* things happening at the time of Reagan". (We don't say that Washington *explains* Reagan, since Washington no longer exists.)

[3] Kristie Miller, in Ryan Mullins, "Ep. 82 The Arrow of Time with Kristie Miller", *The Reluctant Theologian Podcast* (Podcast, 2021).

[4] See William Lane Craig, *Time and Eternity* (Wheaton: Crossway, 2001), 116f. One might object that I need only know 'It is noon when this statement is uttered or thought of'. But this seems just be a tensed fact, since the phrase 'this statement' just seems to mean 'the statement that is being uttered now'.

[5] Of course, since I do not think time exists, saying "time is continuous" translates to "things change continuously".

[6] Even if it's false that all moments have equal duration, *at least* some of those moments would still need a duration so that they can all add up to one second.

[7] $\forall x \forall y\ (x \neq y \rightarrow \exists z\ \phi zxy)$, where ϕzxy means 'z is temporally between x and y'.

[8] In any case, I'm an anti-realist about moments; these are just human concepts where we mentally "freeze-frame" things to help us think about change.

[9] The *growing block* view states that the present and past exist (but not the future). The *shrinking block* view states that the present and future exist (but not the past). Both of these views fall prey to the moving spotlight problems.

[10] This is my version of John McTaggart's Paradox. One might argue that the different spacetimes are merely four-dimensional slices of a five-dimensional spacetime. Apart from the extravagance of this claim, it does not solve the problem. For if someone takes a moving spotlight view about five-dimensional spacetime, that implies the same contradiction in five-dimensional spacetime, because it entails that there are four-dimensional slices that are both present and not present. This recurs no matter how many dimensions we add. See Craig, *Time and Eternity*, 144f.

[11] I owe this seventh intuition and the thought experiment entirely to Sally Haslanger, "Persistence, Change, and Explanation", *Philosophical Studies* 56.1 (1989): 17.

[12] Alex Malpass, in Cameron Bertuzzi, "Did the Universe Begin to Exist? William Lane Craig + Alex Malpass", *Capturing Christianity* (YouTube, 2020).

[13] See William Lane Craig, "Does This Fix the Kalam Cosmological Argument?", *Reasonable Faith Podcast* (Podcast, 2023).

[14] See Malpass and Morriston, "Endless and Infinite", *The Philosophical Quarterly* 70.281 (2020): 830-849 and Morriston, "Beginningless Past, Endless Future, and the Actual Infinite", *Faith and Philosophy* 27.4 (2010): 439-450.

[15] Thanks to Jeremy Kidd for discussion on this.

[16] Craig, "Does This Fix the Kalam Cosmological Argument?"

[17] I owe the idea of an indeterminately long first moment of time to R. T. Mullins, "The Divine Timemaker", *Philosophia Cristi* 22.2 (2020): 236.

[18] I owe this type of view to Alex Malpass.

[19] I owe this type of proof to Joe Schmid, "New objections to the Kalam still work", *Majesty of Reason* (YouTube, 2023).

The Open Future

For a future event to be *open* (or *indeterminate*) is for there to be no fact as to whether it will happen or fail to happen. If it is *open* whether I will go to Chipotle, there is no truth about it—it is not true that I will go to Chipotle, and it is not true that I will fail to go to Chipotle. For a future event to be *closed* (*or determinate*) is for there to be a fact about whether it will happen.

For the future to be open is for there to be at least some future events that are open. (It is *not* the view that *every* future event is open.) The open events are those described by *future contingents*, and the closed events are those described by *future necessities*. A *future contingent* (FC) is a future-tense statement that is not entailed by the present and the past—for example, the statement "I will go to Chipotle" is a future contingent just in case things could go either way: I could end up going there, or I could end up staying home. A *future necessity* is a future-tense statement that *is* entailed by the present and the past—for example, if God exists and it's impossible for God to stop existing, then the statement "God will exist tomorrow" is a future necessity—it *must* be true, given the present and the past.

For open futurists, all future necessities are true, and all future contingents are not true. That gives us two options for future contingents: either they are *false* or *neither true nor false*. As Patrick Todd points out, there's no good reason to verge from classical logic here, and so it's better (not to mention simpler) just to say that all future contingents are false.

1. Rhoda's Argument for an Open Future

I summarize Rhoda's argument as follows (let a *contingent event* (CE) be an event that was not entailed by anything that happened before it):

1. Every CE involves two logical steps: an open state and a closed state.
2. If (1), then every CE changes from open to closed at a certain time.
3. If every CE changes from open to closed at a certain time, then the future is open.
4. Therefore, the future is open.

(3) seems quite reasonable. If some event goes from open to closed, the only non-arbitrary time for that to happen is *when the event happens*. So before the event happens, it is an open question whether or not it will happen; but once the event happens, that question is closed. If this is the case for *every* contingent event, then *before* any contingent event occurs, it is open. Therefore by definition, as long as there are future contingents, the future is always open.

(2) is obvious. There are only two alternatives to (2). The first is that an event is both closed and open at the same time, which is a contradiction. The second is that an event goes from closed to open, which doesn't make any sense. Once it has been decided that an event happens, it makes no sense for reality to somehow "forget" that fact.

(1) is the crucial premise. It does seem intuitively plausible that if there is a *genuine* possibility for an event to either happen or not happen, then reality can be divided into two logical steps: (i) a state where it is *open* as to whether that event happens, and (ii) a state where it is *closed* as to whether that event happens. Indeed, perhaps this is the key difference between determinism and indeterminism: on determinism, there are only *closed* states; whereas on indeterminism, the genuine possibilities are grounded in the initial open, unresolved states of certain situations such as free choices and quantum scenarios.

I do not see why the simple foreknowledge theorist should accept (1). Why would indeterminism requires open information states? Indeterminism requires only that certain situations *can* go one way or another, and I do not see why this requires there to be open information-states. The open theist might ask: "Then what is the truth value of a given future contingent *explanatorily prior* to the explanatory moment at which its truth is settled?" But the simple foreknowledge theorist does not think that there is such an explanatory moment. The simple foreknowledge thinks that at *every* explanatory moment the truth value of every future contingent is settled.

2. Todd's Argument for an Open Future

A *counterfactual* is a subjunctive conditional statement. For example, 'If Caesar were alive today, he would conquer America'. A *counterfactual contingent* (CC) is a counterfactual whose consequent is not entailed by its antecedent. For example, 'If I were rich, I would buy a Mercedes' is a CC just in case that situation could turn out such that I buy a Mercedes, and that situation could *also* turn out such that I do not—it could go either way. CCs and FCs, then, are closely related. So: are FCs and CCs true or false?

There are two reasons to think they are all false. First, it is metaphysically arbitrary or random to say that some of these are true and some are false, since there is simply not enough information in all of reality to decide their truth.[1] Patrick Todd gives a parallel example: "In the world of J. K. Rowling, when Harry Potter wakes up in the morning, does he normally put on his left shoe first or his right shoe first?"[2] It would be arbitrary to say that it is one or the other. And so it goes with FCs and CCs. If things really could turn out in a variety of ways, it just seems arbitrary to assign different truth values to different FCs and CCs. When I consider a chancy situation (such as a free creature about to make a choice), it seems most intuitive that things are *open* as to how things will go—the matter isn't settled unless and until things actually play out a certain way.

Second, if we allow for true CCs in particular, we end up with infinitely many facts about every possible free creature, perhaps most of whom do not even exist—e.g., "If a blue-skinned man living on Mars were offered to ride in a Volkswagen, he would refuse". Having this infinite list of specified facts makes one's theory *enormously complicated*.

3. Objections to an Open Future

Objection 1. Intuitions

One might object that it just *seems* that some FCs and CCs are true. For example, it seems at least super likely that I will go to bed tonight. And it seems obvious that if I let my mom choose between a piece of chocolate cake and a pile of poop, my mom would choose the cake.

I share these intuitions, but we need to examine these situations more closely. It seems plausible that the poop is so repugnant and the cake so desirable that my mom simply *couldn't* choose the poop over the cake. In this case, the counterfactual above isn't actually a CC, since the situation *couldn't* go multiple ways. If one insists, "No, she genuinely *can*. She could choose either way", then the intuition that she *would* choose the cake goes away. It is replaced by a mere probability —she *probably* would choose the cake. The same goes for my going to bed. It certainly seems *likely*, but that doesn't mean it's true. We might have an emergency and I might not sleep tonight. Again, these chancy situations seem genuinely open until things actually play out.

Objection 2. Language

People still *use* FCs and CCs in everyday language, and we surely aren't talking nonsense. How do we explain that?

In any given case, it seems that one of four things is going on. First, perhaps what we say is false but still useful. For example, my boss might say, "If you had gotten to work earlier, you would've gotten more done". This is useful even though it appears to be false: maybe an ax murderer was lurking around in the early morning and would have killed me if I had gotten to work earlier. Second, perhaps we are really talking about *probabilities*—when we say that something will happen, or that it would happen in a given situation, we mean that it will *probably* happen, or that it would *probably* happen.[3] Third, perhaps the statement is not actually a FC or a CC, as in the chocolate cake case above. Fourth, perhaps we are talking about real desires or propensities—for example, "If I had known that she liked me, I would have asked her out" could be translated to "I had the desire to ask her out". Fifth, perhaps we are talking about a decision that is *actually* made. For example, the statement, "If I were to go to the ice cream shop, I would get vanilla" seems to be a way of saying, "I have (mentally) examined the options in the ice cream shop, and I *choose* vanilla".

Similarly, statements such as, "I'll come with you" often do not seem to be predictions about future events, but rather seem to be about present intentions: "I'm *planning* to come with you". As for statements that *are* intended to predict future contingent events, I go back to what I initially said: If there is simply not enough information in the universe to decide that a FC is true or false, it seems arbitrary and random for some FCs to be true and others false. The exact same reasoning applies to *predictions* that contain FCs. So if one already accepts that all FCs are false, it is only natural to add that all predictions that contain FCs are false.

Objection 3. Confirmation

What about FCs and CCs that end up being confirmed? If I say, "It will rain tomorrow", and the next day it rains, shouldn't we say that my prediction was true? Similarly, if I say, "If Trump were to run for president in 2024, he would win", and that ends up being the case, shouldn't we say that my statement was true?

The answer appears to be non-literally Yes but literally No. The statement,"My prediction was true" is true in a non-literal sense—namely, in the sense that we can compare a copy of the past prediction to the outcome and see that they match up with each other. But that doesn't mean that what I said was *true when I said it*. Again, my intuitions from the arbitrariness argument kick in and tell me that there was simply not enough information in the universe to decide that my prediction was true. So strictly speaking, my prediction was false.[4]

But it's crucial to note that my prediction wasn't false in the sense that we virtually *always* use the word *false*. What we virtually always mean is that things turn out in a way that *contradicts* the prediction—for example, I say, "It will rain tomorrow", but then it doesn't rain the next day. It's situations such as these that prompt us to say that someone was *wrong*, or a *liar*, or a *false prophet*. This is very different from someone making a prediction, and reality simply not having enough information (yet!) to either match up with or contradict that prediction.

Objection 4. Contradiction

One might object that denying FCs leads to a contradiction. Suppose I flip a coin in a way that forces it to land *either* heads or tails, but leaves it open as to which side it will land on. And so "The coin will land either heads or tails" is a future necessity, but "The coin will land heads" and "The coin will land tails" are each future contingents. The person who denies FCs is therefore committed to the following three statements:

1. The coin will land either heads or tails.
2. It's false that the coin will land heads.
3. It's false that the coin will land tails.

(2) and (3) together seem to entail that (1) is false, which would be a contradiction.

But as Patrick Todd points out,[5] (2) and (3) together do *not* entail that (1) is false. Instead, (2) and (3) together entail the following statement:

4. It's false that *either* the coin will land heads or the coin will land tails.

There is no contradiction between (4) and (1), and one can make a parallel scheme to show that there is no contradiction entailed by denying CCs.[6]

Objection 5. Spacetime

One might object that the universe is a four-dimensional spacetime block, and so the future exists just like the present does, but merely at a point further along the time dimension. In this case, since future situations actually exist, there *are* facts about how future contingent events play out. Of course, the open futurist can simply deny that the universe is a spacetime block, and say instead that only the present (and maybe the past) exists.

Objection 6. Temporal Symmetry

One might object as follows: If neither the future nor the past exists, and the arbitrariness argument succeeds against the future, then it also succeeds against the past, forcing us to conclude that the past is open! But the past is obviously not open—there are solid facts about everything that has ever happened. Therefore, the future is not open.

But there are three relevant differences between the past and the future. First, the past is responsible for the present—the present in a sense "bears the marks" of what happened, even if multiple histories could have led up to the present. Perhaps when a rock falls off a cliff, the rock takes on the property of having fallen off the cliff. Second, when something happens, it seems to me that it somehow gets imprinted into history—perhaps as an abstract object, or as a property of the universe as a whole. Third, the past is fixed—we have no power over it—whereas the future is non-fixed; it is currently within our power to control and affect the future. And even if we accept that there are "free-floating" facts about what happened in the past, it seems that the wrong move to add *more* free-floating facts about what will happen in the future—that would make our theory more complicated.[7]

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[1] Thanks to Patrick Todd for this point. Note that the objection is not that the truth of counterfactuals would have no *explanation*—they might be explained by the counterfactual circumstances themselves. See Alexander Pruss and Joshua Rasmussen, "Explaining Counterfactuals of Freedom", *Religious Studies* 50.2 (2014): 193-8.

[2] This is a paraphrase from Patrick Todd, in Joe Schmid, "Is the Future Open? | Dr. Patrick Todd", *Majesty of Reason* (YouTube, 2023).

[3] I owe this option to Jordan Hampton.

[4] One might try to say that my prediction *became* true when it rained, but this seems implausible, since it involves changing the past, which I argue is impossible. See Bandy, "Time".

[5] This is from personal correspondence with Todd, although he makes similar points in his YouTube appearances.

[6] To put it formally:

Wx ≔ it will be the case that x
h ≔ the coin lands heads
t ≔ the coin lands tails

1. W($h \vee t$)
2. ~Wh
3. ~Wt
4. ~Wh · ~Wt Conj 2, 3
5. ~(Wh · Wt) Equiv 4
6. ~(Wh ∨ Wt) Equiv 5

As you can see, there is no prospect of deriving a contradiction.

The same logic applies to CCs; simply redefine 'Wx' as 'if I were to flip the coin, it would be the case that x'

And so William Lane Craig errs in implying that the phrase 'It is not the case that' should not be used. That phrase is equivalent to adding a negation symbol at the beginning of a proposition. This is negation at the widest scope. Such a phrase is obviously permissible.

Craig also errs in thinking that a statement such as 'It will not be the case that Bush wins the election' implies that Bush will lose the election. That statement is consistent with a meteor's striking earth and killing everybody, in which case Bush does not lose the election.

Craig also advocates using phrases such as 'It will not be the case that x'. But this is ambiguous. Does it mean W(~x) or ~Wx?

See William Lane Craig, *The Only Wise God* (Wipf and Stock, 2000), 61-63.

[7] I owe the first and fourth points here to Patrick Todd.

Actual Infinites

An *actual infinite* is a set of at least $\aleph_0$ members, where $\aleph_0$ (aleph-null) is the number of natural numbers (1, 2, 3, …).[1]

1. Arguments for Actual Infinites

1.1. Continuous Time or Space

One might argue that if time is continuous, then actual infinites exist. If time is continuous, then the following non-overlapping durations of time elapse in order: a second, a 1/2-second, a 1/4-second, an 1/8-second, and so on. This is an actually infinite number of non-overlapping durations of time that elapse sequentially, and that collectively have a duration of two seconds. Similarly, if space is continuous, then we can select an actually infinite number of increasingly small non-overlapping volumes of space that collectively occupy some non-zero finite volume.

Now, I've argued in "Time" that time and space are continuous. But I don't think that this entails the existence of actual infinites. "Durations" and "volumes" are abstract objects, and I don't believe that any abstract objects exist. So this argument is not persuasive.

1.2. Numbers

One might argue that numbers exist. It would be bizarre and arbitrary for only *some* numbers to exist and not others; so if *some* numbers exist, then they *all* do. But if all numbers exist, then—since there is infinitely many numbers—actual infinites exist. Now, I've argued in "Abstract Objects" that numbers do not exist, so this isn't persuasive to me.

1.3. The Future

One might argue that since the future is endless, the future is infinitely long and thus an actual infinite. I've argued for this in "The Past and Future".

1.4. Infinite Regresses

One might argue as follows:

1. If there are infinite regresses, then there are actual infinites.
2. There are infinite regresses.
3. Therefore, there are actual infinites.

2. An Argument against Actual Infinites

Actual infinites appear to open the door to a host of bizarre scenarios. Imagine Hilbert's Hotel, which has $\aleph_0$ rooms (Room 1, Room 2, Room 3, …), and consider three bizarre consequences:[2]

- Even if every room is occupied, the hotel can accommodate another guest by simply moving each current guest to the next room: Room 1's guest moves to Room 2, whose guest moves to Room 3, etc.). Now Room 1 is empty, even though nobody left the hotel.

- Even if every room is occupied, the hotel can accommodate *infinitely many* new guests by moving each resident to the room whose number is *double* their current number (Room 1's guest moves to Room 2, Room 2's guest moves to Room 4, Room 3's guest moves to Room 6, etc.). Now all the odd-numbered rooms are empty, even though no one left.

- Suppose that every room is occupied, but all the guests in the odd-numbered rooms check out. In that case, $\aleph_0$ guests leave, but $\aleph_0$ guests remain. So it seems that $\aleph_0 - \aleph_0 = \aleph_0$. On the other hand, suppose that all the guests in the rooms numbered higher than Room 3 check out. In that case, $\aleph_0$ guests leave, but 3 guests remain. So it seems that $\aleph_0 - \aleph_0 = 3$.

1. If an actual infinite is possible, then Hilbert's Hotel is possible.
2. Hilbert's Hotel is impossible.
3. Therefore, an actual infinite is impossible.

(1) appeals to recombination.[3] For example, if a hotel with one room is possible, and a hotel with two rooms is possible, then—assuming infinitely many entities is possible—a hotel with $\aleph_0$ rooms should be possible. This seems right. Given that infinitely many entities is possible, one could just replace each entity with a room to produce Hilbert's Hotel. What would stop one from doing so?

One might defend (2) by saying that since infinity isn't a number, the number of total entities cannot be infinity. *My reply:* But $\aleph_0$ is a number.

One might defend (2) by saying that the details of Hilbert's Hotel are just bizarre. I agree. But does its bizarreness entail its impossibility? Lots of bizarre things happen in the physical world. Plus, all three consequences of Hilbert's Hotel are *expected* if infinitely many things exist.

In addition, there is a mistake in the third consequence. The third consequence tries to subtract from $\aleph_0$. But when it comes to $\aleph_0$, the subtraction operation is undefined, so the scenario of people's checking out of the hotel would *not* correspond to subtraction. Rather, the scenario of people's checking out corresponds to one of the *complement* operations. The *complement* of S within its superset T is the set of all the members of T that are *not* members of S. And so the complement of the set of odd numbers within the set of natural numbers is the set of even

numbers. And the complement of the set [4, 5, 6, …) within the set of natural numbers is the set [1, 2, 3].[4]

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[1] An actual infinite is to be distinguished from a *potential infinite*, which is a set that always has finitely many members, but which will endlessly continue to increase in cardinality. For example, the set of days that have passed since January 1, 2000 is a potential infinite. As I am currently writing this, that set has 9380 days. Each day, that set will gain a new member, and this will continue endlessly, but there will never be a point at which the set has infinitely many members.

[2] This is Hilbert's Hotel, named after the mathematicina David Hilbert and popularized by William Lane Craig.

[3] See the discussion of recombination in Bandy, "Possibilities".

[4] I owe this point to Alex Malpass, in Miles K. Donahue, "God and the Beginning of the Universe | #3 Dr. Alex Malpass", *Uncertainty* (Podcast, 2024).

Infinite Regresses

An *infinite regress* is an actual infinite whose members are arranged in a series under some priority relation, such that for each member, there is a prior member; and this holds even if we remove all loops. The relation must be a transitive, asymmetric, and irreflexive relation, such as time, causation, explanation, parthood, grounding, belief-basing, and so on. For example:

•*Infinite temporal regress*: Every duration of time is preceded by an equally long duration.

•*Infinite causal regress*: Every member in the series is caused by a prior member. For example, suppose that a cannonball is flying through the air, 5 feet away from the cannon that just shot it out. It is 5 feet away from the cannon because earlier, it was 3 feet away from the cannon, which in turn is because even earlier, it was 2 feet away from the cannon, which in turn is because even earlier, it was 1.5 feet away from the cannon. We can continue backward with diminishing time frames in a way that converges on some point in the air and so never gets back to the cannon. (Although the infinite regress *as a whole* was caused by the cannon.)

•*Infinite compositional regress*: Every proper part of some object has proper parts. For example, perhaps molecules are composed of atoms, which are composed of quarks, which are composed of even smaller particles, and this goes on forever, without ever reaching a fundamental level.

Ⓘ Arguments for Infinite Regresses

1. Eliminating Circularity and Bruteness

One might argue that an infinite regress model of reality is better than the two alternatives: (1) reality caused itself to exist, and (2) reality has a starting point that exists with no explanation. After all, self-causation (or self-explanation, etc.) is extremely counterintuitive, and it also seems bizarre for something to exist with no explanation whatsoever.

I can see the intuitions here, but this isn't entirely persuasive. On a theory where reality has an unexplained foundation, maybe we can say something about that foundation that removes the mystery of its existence—maybe we can make sense of the idea that it doesn't or even *couldn't* have an explanation or cause. And the foundation can provide a satisfying explanation for the finite regress that stretches back to it. But with an infinite regress, there is no such foundation; and so for me, the mystery as to why *the entire infinite regress* exists is heightened.

2. Arbitrariness of Any Beginning Point

Another argument, adapted from Michael Huemer, is that any sort of beginning to the universe is arbitrary. If we say that the universe is 13.8 billion years old, then it would be simpler to say that the universe is only 6 billion years old, since that shaves off 7.8 billion years of history. It would

be simpler still to say that the universe is only 5 minutes old, for the same reason. But if we keep going like this, we'll end up saying that the universe is only a split second old, and we'd keep having to push the beginning of the universe later and later as time passes, to make sure that our theory is as simple as possible. This is obviously absurd and wrong. So the only non-arbitrary option is to say that the universe or reality is infinitely old.

But this is not persuasive, since the younger universes have issues that seem to outweigh the simplicity benefits,[1] and we postulate 13.8 billion years because that best accounts for the data of modern science; so 13.8 billion years is not an arbitrary number.

II Arguments against Infinite Regresses

1. Ultimate Source

One might argue that an infinite regress of elements is impossible because there is no *original source* of the elements; there are only *derivative* elements. Derivative elements cannot exist without an ultimate source. But this argument is unpersuasive; it is simply not clear to me that derivative elements require an ultimate source. It seems enough for each derivative element to have *some* source, and an infinite regress satisfies this.

2. Complexity

Even if infinite regresses cannot be ruled out, one might worry about the complexity of an infinite regress. It does, after all, involve an actually infinite number of members and explanatory relations. As Graham Oppy has said, "No matter how far back you go, there's still an infinite amount of stuff before that".[2] On the other hand, one might hold to infinite regresses because they can avoid circular explanation and unexplained members, since every member in an infinite regress is explained by the one prior to it. But to me, it seems clear that we should not believe in an infinite regress due to the enormous explanatory cost—the cost of infinitely many past events seems to swamp whatever cost there is of having a first member.

3. Information

Imagine you have a math textbook, complete with lessons and exercises, and you ask where it came from. Your teacher says that it was copied from an earlier copy of the book. You ask where that copy came from. Your teacher says that it was copied from an even earlier copy. You ask where the *original* book came from. Your teacher says that there was *no* original book—the copies just keep going back and back forever.[3] The weirdness of this scenario is that the book contains *information*—symbols that represent human concepts. It seems counterintuitive and bizarre to think that such information had no origin.

Now, I do think such a situation is impossible, but I don't think the infinite regress has much to do with it. What seems impossible is that the complex, clearly designed *information* of the book exists with zero explanation, regardless of whether there was an infinite regress or not. And so is the universe akin to such a textbook? Does the universe contain clearly designed information? I tend to think it does, and I discuss this in "Teleological Arguments".

4. Building Hilbert's Hotel

1. If an infinite regress is possible, then it is possible to build Hilbert's Hotel.
2. It is impossible to build Hilbert's Hotel.
3. Therefore, an infinite regress is impossible.

(1) seems right—we just suppose that one room is added each year, all the back through the infinite past. By now, there is infinitely many rooms. But why think that (2) is true? Hilbert's Hotel isn't contradictory or incoherent; it merely has the strange properties we would expect in an actual infinite.

5. Successive Addition

1. If an infinite temporal regress can exist,
   then an actual infinite can be formed by successive addition.
2. If an actual infinite can be formed by successive addition,
   then an actual infinite can be completed with a *final* addition to the set.[4]
3. An actual infinite cannot be completed with a final addition to the set.
4. Therefore, an infinite temporal regress cannot exist.[5]

(1) seems wrong, since perhaps time is continuous and the past was formed by continuous accretion rather than by successive addition.[6]

(2) seems wrong, since maybe one can add members faster and faster (e.g., after a 1/2-second, then a 1/4-second, then an 1/8-second, etc.) and so build an actual infinite within a finite duration and *without* a final addition to the set.[7]

(3) seems wrong, since if time is discrete, then a past-eternal series of days *would* feature a final addition: *yesterday* would be the final addition that completed the actual infinite. (My response here is obviously inconsistent with my response to the first premise.)

Objection: If the past is infinitely long, then yesterday and the day before that are both Day $\aleph_0$, which implies that they are the same day. But they are *not* the same day, and so the past is not infinite. *Reply:* It is mistaken to say that two things are identical merely because your labeling system produces the same label for both of them. We can use a different labeling system: 'Day Number 1st-to-last' and 'Day Number 2nd-to-last'.[8]

Objection: An infinitely long past is impossible because you can't count from negative infinity up to zero. *Reply:* Of course you can't count from negative infinity up to zero, since "negative infinity" isn't a number. But a past-eternal universe doesn't do anything like that. There *was* no beginning point to count up from. The past has *always* been infinitely old.

6. The Messenger Paradox

6.1. The Past Messenger Paradox

Suppose that a paper is passed through a chain of $\aleph_0$ messengers, each existing at a different time in the past. When any messenger receives the paper, he writes on it *if and only if* it's blank, then passes it forward. Now, the paper is *never* blank, because no messenger ever passes forward a blank paper, which means no messenger ever receives a blank paper. But the paper is *always* blank, because if it *did* have something on it, that would imply that some messenger wrote on it, which means they *had* received a blank paper, which, as we saw, never happens. So the paper is never blank and always blank.[9] And so the argument goes:

1. If an infinite regress is possible, then the messenger paradox is possible.
2. The messenger paradox is impossible.
3. Therefore, an infinite regress is impossible.

(2) is clearly true, since the messenger paradox (MP) involves a contradiction. But why might one affirm (1)? One might appeal to a *patchwork principle* or *recombination principle*: if some series of seconds S is possible, and some situation P is possible, then a world is possible in which P is pasted to every second of S.[10] For example, suppose that S is a past-eternal series of seconds, and P is the event of a person's picking up a piece of paper, writing on it if and only if it is blank, and then passing it to someone else. According to recombination, if both S and P are possible, then it is possible to have a world in which P is pasted to every second of S. And of course, this is the messenger paradox. So if recombination is right, then we should accept (1).

But suppose that someone believes that an infinite regress is necessary. In other words, reality is *necessarily* past-eternal: no matter how far back you go in *any* possible world, you can still go back further. On this view, (1) is false: an infinite regress is possible but the MP is impossible, since every possible world contains an infinite regress but no possible world contains the MP.[11]

Rob Koons critiques this response, arguing that the patchwork principle is far more supported than the possibility of an infinite regress. The patchwork principle enables us to perform modal reasoning in general—we reason about what is possible by taking actual situations and pasting them and recombining them and seeing if we get something coherent. Therefore Koons, as I understand him, argues that we should accept (1).[12]

6.2. The Future Messenger Paradox

The MP is a metaphysical manifestation of the Infinite Liar Paradox,[13] in which a contradiction arises when you have an infinite regress of propositions in which each proposition is true if and only if all the previous ones are false. Now, one might say that the best way to avoid the contradiction is to say that infinite regresses are impossible. But this seems like overkill. All you need to say is that an infinite liar setup is impossible: you can't have an infinite regress in which each proposition is truly if and only if all the previous ones are false. That doesn't mean you can't have an infinite regress by itself![14] The fact that two things are jointly impossible does not imply that each of them is individually impossible.

The MP can be modified to apply to infinite *progress*.[15] Suppose that a paper is passed through a chain of $\aleph_0$ messengers, each existing at a different time in the future. When any messenger receives the paper, he writes on it *if and only if* no one after him will write on it. Then he passes it forward.

Will the first messenger write on it or not? If he does, then no one after him will write on it. But that means no one after the *second* messenger will write on it. But that implies that the second messenger *will* write on it. So the second messenger both will and will not write on it. And if the first messenger does not write on it, then someone after him will write on it. So let's fast-forward to that person—call him Bob, and let Dan be the person after Bob. Since Bob will write on it, then no one after Bob will write on it. But that implies that no one after Dan will write on it. But that implies that Dan *will* write on it. So Dan both will and will not write on it.

Note that this scenario doesn't involve backward causation or even backward influence. It only requires logical connections between the present and the future, which are surely unobjectionable. There have been cases where I have written on a paper if and only if no one after me will write on it, because I burned the paper afterwards.

We can construct a parallel argument against the possibility of infinite progress. But surely infinite progress is possible, and so again, the premise to reject is the premise parallel to (1): we will reject that the possibility of infinite progress implies the possibility of the future MP.

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[1] See Bandy, "Theories".

[2] Graham Oppy, in Alex Malpass, "Episode 19, Graham Oppy & Joe Schmid on Oppy vs Loke (debate review)", *Thoughtology* (YouTube, 2020).

[3] This example is from Leibniz, "On the Ultimate Origin of Things".

[4] Adapted from William Lane Craig, *The Kalām Cosmological Argument* (London: Macmillan, 1979), 104, who expresses the principle with talk of having to pass through an "immediate predecessor" of the final state.

[5] The successive addition argument is adapted from Craig, *Kalām*, 102-110.

[6] I owe this response to Graham Oppy.

[7] Graham Oppy, "Reply to Professor Craig", *Sophia* 34.2 (1995): 15-29 demonstrates a mathematically possible way to transform this supertask into an infinite regress.

[8] Now, *this* labeling system makes it impossible to label any day in the future, since any day in the future would be called 'Day Number Infinitieth-to-Last'. But that's hardly an argument that time must end one day.

[9] Adapted from Rob Koons, in Cameron Bertuzzi, "New Evidence that the Universe Began to Exist (with Dr. Rob Koons)", *Capturing Christianity* (YouTube, 2021). I've created a formal first-order proof of the paradox, but it's 53 lines long. Please email me if you would like to see it.

[10] Adapted from David Lewis, mentioned by Rob Koons, "New Evidence".

[11] One way to flesh this out would be to adopt a branching theory of modality such as described by Alex Malpass, in Joe Schmid, "Is the Past Finite? | Dr. Josh Rasmussen & Dr. Alex Malpass", *Majesty of Reason* (YouTube, 2021), 53:30.

[12] Rob Koons in Suan Sonna, "Kalam & Causal Finitism - Joe Schmid & Robert C. Koons", *Intellectual Catholicism* (YouTube, 2022).

[13] See Bandy, "Reference Paradoxes". Nicholas Shackle, "The form of the Benardete dichotomy", *British Journal for the Philosophy of Science* 56.2 (2005): 397-417 also brings out the connection. Thanks to Alex Malpass for bringing Shackle's paper to my attention.

[14] This was discussed in Joe Schmid, "Grim Reapers, Causal Finitism, and the Kalam | Dr. Alex Malpass", *Majesty of Reason* (YouTube, 2020).

[15] I owe this idea to Joe Schmid.

THE EXISTENCE OF GOD

Cosmological Arguments

Cosmological arguments for theism have two stages.[1] *Stage 1* argues that reality or the universe has a foundation or explanation with certain properties. *Stage 2* argues that the best candidate for such a foundation is God.[2] I have seen six main versions of Stage 1:

- *Contingency* arguments contend that everything that is *contingent* needs an explanation, and so there must be a *necessary* explanation of all contingent things.
- *Kalām* arguments contend that the universe had a beginning in time and therefore requires an external cause or explanation.
- *First-cause* arguments contend that the causal or explanatory network of reality cannot regress infinitely, nor contain a loop, and so there must be a first uncaused cause.
- *Grounding* arguments contend that history—the temporal sequence of causes and effects—stands in need of an explanation, and so there must be a non-causal ground of history.[3]
- *Brute-fact* arguments contend that every brute fact needs an explanation, and so there must be a foundational being that does not intrinsically involve any brute facts.
- *Complexity* arguments contend that everything that is *complex* or *arbitrarily limited* needs an explanation, and so there must be a *simple* foundation of all complex objects. These would include *Thomistic* arguments, which contend that everything with a distinct essence and existence requires an explanation, and thus the foundation of reality must be something whose essence *is* existence itself.

How much you argue for in Stage 1 can vary widely. You might argue for something very close to God in Stage 1 and so not have much left to argue for in Stage 2. Or you might only argue for a generic first cause in Stage 1 and so have a lot of work left to do in Stage 2. In this essay, I glance at (1) some popular theistic cosmological thinking, (2) my contingency argument, (3) a brute-facts argument, and (4) explanatory principles and parallel principle responses.

1. Popular Theistic Cosmological Thinking

Some theists say that, on atheism, the universe "exploded out of nothing", or that "something came from nothing", or that "nothing came from nothing". But all three of these are mistaken. There are other options available to the atheist. The atheist might believe that the universe or physical reality is past-eternal. The atheist might believe that, at the first moment of time, the universe existed with no prior cause, and so there was *never* a time at which nothing existed. The atheist might believe that this temporal phase of the universe was preceded by a timeless or non-metric–time phase of the universe.

The atheist might believe that the universe is explained by a supernatural impersonal force or principle such as the Tao or Brahman or the Neoplatonic One. Or the atheist might think that there is some underlying mathematical explanation or law that explains why the universe exists. Or the atheist might simply be unsure as to the origin of the universe, but still have reasons for thinking that theism is not the best explanation. The idea that "an infinite umembodied

supermind thinks the universe into existence"[4]—and has seemingly magical, virtually unlimited power and knowledge of the movement of every particle and what everyone is thinking all the time—might seem implausible to some atheists, or perhaps even so fanciful that it's not worth considering as a serious explanation for the mystery of the origin of the universe.

2. My Contingency Argument

1. Every contingent thing depends on another thing.
2. If every contingent thing depends on another thing, then a necessary entity exists.
3. If a necessary entity exists, then God exists.
4. Therefore, God exists.

Premise 1. Every contingent thing depends on another thing.

If something could have failed to exist, then the question arises: *why* does it exist? It would've been simpler for it not to exist. So why does it exist at all? It's implausible to think that *nothing* whatsoever caused or explained its existence. The implausibility only increases if we think that the contingent entity is at the foundation of reality. If the foundation of reality is contingent, it could have failed to exist: reality could have had a number of different starting points—and *for no reason*, since *every one* of those possible foundations would be unexplained! That seems unnecessarily complex and fragmented. On the other hand, if there is a single *necessary* foundation, then there was only *one* possible foundation, and this necessary foundation unifies *all* the different ways reality could have played out. And so it seems better to say that the foundation is not contingent, and more generally that no independent entity is contingent.

Premise 2. If every contingent thing depends on another thing, then a necessary entity exists.

If every contingent entity is dependent on another entity, then we have an *explanatory network* of entities. An explanatory network must have at least one of three features:

- *Loop.* A depends on B, which depends on C, and so on, eventually looping back around to A.
- *Infinite Regress.* A depends on B, which depends on C, and so on, going infinitely back with infinitely many members.
- *Finite Regress.* A depends on B, which depends on C, and so on, eventually stopping at an entity that does not depend on anything.

Loops are implausible because dependence is *transitive*: if A depends on B and B depends on C, then A depends on C. But in a loop, if you start with A and follow the chain of dependence backwards, you'll eventually get back to A, which means that, in a loop, A depends on *itself* ! But surely nothing depends on itself! That would be like saying that someone can float in the air by pulling himself up by his bootstraps, or saying that something can create itself. Similarly, if I ask, "Why is it raining?", and you answer, "Because it's raining", that would be a laughable answer.

Infinite regresses also seem implausible because they are so complicated. No matter how far back you go, there are still infinitely many items you haven't gotten to yet.[5] It also seems like an implausible and unsatisfying theory that the chain of dependence just keeps going back and back with no ultimate foundation or explanation.

Now, if the network does not contain a loop or infinite regress, it must contain a finite regress. Therefore, there must be an entity that is not dependent on any other entity. But since every contingent entity *is* dependent on another entity, then this independent entity must be *necessary*.

It also seems that, regardless of whether there is a loop or an infinite regress or neither, there is something problematic about a network that contains *only* contingent entities. As Joshua Rasmussen argues, such a network seems to involve a construction error.[6] Imagine a single dependent object—the type of object that *needs* to depend on something else and cannot just exist independently. Now imagine that we add a second dependent object. It seems that these two objects are collectively *still dependent* in the sense that there needs to be a third object to explain them. It's not as if the need for an explanation disappears just because we added another object.

Surely this doesn't change no matter how many more objects we add, and no matter whether we wrap them into a loop or stretch them into an infinite regress. No matter how many red pixels you add to a canvas, you won't get a blue piece of art; similarly, no matter how many contingent and dependent objects you add to your network, you won't get a *necessary* or *independent* network. If contingent objects by nature need to depend on something else, then all we're doing is adding more objects that themselves need explanations. And so the question remains: why are there *any* contingent things at all?

It seems the only way to satisfy the need for an explanation is for every contingent thing to ultimately depend on something that is *not* contingent. This, of course, would be a *necessary* thing, a thing that *must* exist no matter what.

Premise 3. If a necessary entity exists, then God exists.

Now that we've established the existence of a necessary entity, we must ask: what *is* it? There seem to be four different possible answers:

1. An abstract object such as a number or mathematical equation.
2. A physical entity.
3. A non-physical, non-conscious entity.
4. A non-physical, conscious entity.

1. Abstract object. It seems we can rule out the possibility of the necessary thing's being a number or mathematical equation. Abstract objects don't have any causal or productive power, and so it seems impossible for a contingent object to *depend* on an abstract object.

2. Physical entity. One might argue: it seems intuitive that the universe today is contingent. There are so many features of the universe that could have been slightly otherwise, and many features of the universe seem to have been the result of random chance. Perhaps *all* of the universe, then, has *always been* contingent. After all, it's just physical matter and energy all the way back. Why would it suddenly be necessary once you go far enough back?

But this is unpersuasive. First of all, the universe might have had a necessary starting point, and things might have played out deterministically since then. If that's the case, then all of the universe is necessary. But if that were the case, then people who have the intuition that the universe was contingent would *still* have that intuition. That suggests that this intuition is not very reliable. Second of all, even if there is contingency in the present day, that is accounted for by a naturalistic theory on which the initial state of the universe was necessary, but then random chance plays out after that and realizes one of many possible outcomes.

A better argument against a necessary physical entity comes from Tomas Bogardus. Here is my paraphrase of a very short story by Bogardus:

> One time, when my daughter sneezed, I said, "Bless you!" My daughter asked, "Why did you say, 'Bless you'?" I responded, "Oh, *everyone* says bless you!" But she just gave me a blank stare. She asked, "Why does *everyone* say bless you?"

Surely the question would remain if Bogardus had said, "Everyone *necessarily* says bless you!" If something is already mysterious or question-raising, nothing is solved by saying that it is necessary. Positing necessity doesn't help remove the mystery of why something exists. For some people, necessity makes the mystery worse![7] If it is mysterious why X exists, it doesn't solve the problem to merely declare that X is necessary, especially if we cannot explain *why* we should expect X to be necessary.

The same seems to apply to physical entities. Merely declaring that a physical entity is necessary does not seem to remove the mystery as to why it exists. A physical entity seems like it would not be a good candidate for being *either* necessary or independent, because a physical entity is *bounded*, *limited*, or *complex* in some way. Whether it is a particle, a wave, or a field, it has some sort of limit that seems to require an explanation, and that is not satisfied by merely saying that the entity is necessary.[8]

3. Non-physical, non-conscious entity. This type of entity is difficult to characterize. What exactly is it? It could be some impersonal force or principle or essence, such as the Tao or Brahman or Neoplatonic One. If the universe is contingent, then this impersonal entity would have to involve some sort of random chance so that it can indeterministically produce a universe.

An argument against a non-conscious entity comes from Rasmussen's discussion of *perfection*. It seems that an absolutely *perfect* object is the simplest, most elegant, most unified object conceivable. A non-conscious entity fails to be perfect because, though it possesses some level of

power—at least enough to get the universe started—it has zero consciousness, intelligence, or free will (and maybe zero moral value). In other words, it may or may not be perfect in some respects, but is not perfect in other respects. These limits call out for an explanation.

4. A non-physical, conscious entity. Suppose that the necessary entity is a being that is perfect in every way: perfectly powerful, knowledgeable, good, rational, and so on. Such a being is *simple* because it doesn't have any arbitrary limits. Such a being would also have the power required to explain the universe, and could also be endowed with free will, which would allow it to explain the contingency of the universe. This entity, of course, would be God.

One might object that God might be dependent on another entity. But why would we think this? If there's *any* type of object that is (or must be) independent, it seems that an absolutely perfect and simple being would be the best candidate for this. After all, there has to be *some* entity or group of entities that isn't dependent on anything. Consider reality as a whole. Reality cannot be dependent on some external thing, since that other thing would have to exist, which means it would be *part* of reality, and so it wouldn't be external! Since, therefore, there needs to be *something* that is independent, what is the best candidate for such a thing? It seems that an absolutely perfect and simple being, with no arbitrary limits, would be the best candidate.[9]

One might object that there might be multiple necessary foundations. But again, why would we think this? Positing additional foundations just makes your theory unnecessarily complicated, with no apparent benefit.

3. A Brute Facts Argument for Theism

An *analytic fact* is something that is true in virtue of the definitions of its terms, or in virtue of established logical or mathematical laws. For example, ⟨Every person who is a bachelor is unmarried⟩ is true by definition; ⟨1+1=2⟩ is true due to established mathematical laws; and ⟨p, $p \rightarrow q \vdash q$⟩ is true due to established logical laws. Thus, all three of those facts are analytic. By contrast, ⟨The earth is round⟩ is true, but it's not analytic, since its truth cannot be derived solely from the definitions of its terms, nor from established logical or mathematical laws.

For me, non-analytic facts call out for some sort of explanation, or reason, or something that "clears up" why they are true. It makes sense to ask, "*Why* is the earth round?", and then to go about finding the answer. On the other hand, it seems odd to ask why 1+1 equals 2. There just isn't the same sort of need. It seems that an analytic fact can just be *true*, and that's that.

So what happens when someone posits a non-analytic fact that *doesn't* have the explanation, or reason, or "clearing up" that we would hope for? What if someone says that the earth is round, and that's that—nothing to figure out? What if someone says that there is a chunk of cheese just floating around in space, with no cause? What if someone says that the universe has eternally existed, but for no reason at all? Such facts are *brute facts*, and they are generally recognized as

bad for a theory. We try to avoid brute facts because we want to avoid positing things that simply raise more questions instead of providing satisfying answers.

Now, the argument is that theism avoids brute facts, whereas naturalism requires at least one brute fact. On naturalism, the foundation of reality is *physical*: maybe it is the initial singularity, or a quantum field, or a plurality of particles; or maybe there is no foundation, but the universe has existed eternally. In all of these cases, we have something that is *non-analytic*. There is nothing true by definition, nor true by established mathematical or logical laws, about the existence of some physical state. What's more, on naturalism, the foundation has no explanation or reason for its existence. It didn't come from anything else. It wasn't entailed by some law. There's nothing that "clears up" or "removes the mystery" as to why the universe exists. And so naturalism is supposedly committed to a brute fact.

Theism, by contrast, supposedly avoids this issue. The foundation of reality is God. God doesn't have an *explanation* in the *ontological* sense that there is some prior thing that created, caused, or grounds God. But God's existence isn't a mystery either. Rather, God's existence is *necessary*. We can make sense of God's existence by appealing to the necessity of God's nature:[10] God *must* exist, and so it is not a mystery that God *does* exist. In addition, the fact that God is *necessary* is an analytic fact, since God is simply necessary *by definition*. So neither God's existence nor necessity is a brute fact, and it appears that theism has avoided brute facts entirely.

But this is unpersuasive, for three reasons. First, as I've pointed out in "Language", to say that X is a certain way "by definition" is just shorthand for saying that, *given* how we've defined 'X', X is a certain way. This is obviously just a *linguistic* move, merely definitions of terms. This is not going to remove the *metaphysical* problem that God's existence involves a brute fact. If it *did*, then the naturalist could just say that the initial state of the universe is necessary by definition.

Second, I've argued in "Concepts" that you cannot build *necessity* into a concept. Thus, necessity cannot be part of the *concept* of God, even if God is necessary. And if you could build necessity into a concept, then the naturalist *could* just build necessity into the concept of the universe.

Third, as I've explained earlier in this essay, I doubt that positing necessity helps remove the mystery of existence. If positing necessity doesn't remove the mystery of existence, then saying that something is necessary doesn't automatically avoid a brute fact. And if saying that something is necessary *did* automatically avoid a brute fact, then the naturalist could just say that the universe is necessary.

The theist might say that these naturalistic parodies are *ad hoc* or implausible. But it's one thing to say this and another to argue for it.[11]

4. Explanatory Principles and Parallel Principle Responses

Cosmological arguments each invariably contain a premise that expresses an *explanatory principle*. An explanatory principle is a proposition of the form ⟨Everything that is *F* has some sort of explanation *E*⟩. For example:

- Everything that begins to exist has a cause.
- Everything that is physical has a cause.
- Everything that is contingent is dependent on something else.
- Everything that has arbitrary limits has an explanation.

In recent times, one of the ways philosophers have objected to arguments containing such explanatory principles is by introducing *parallel* explanatory principles that apparently enjoy the same inductive support as whatever original explanatory principle was offered. For example:

- Everything that begins to exist is caused by something that also begins to exist.
- Everything that has an efficient cause has a material cause.[12]
- Everything that is physical has a physical cause.
- Everything that is contingent is dependent on something that is also contingent.
- Everything that has arbitrary limits is explained by something with arbitrary limits.

Obviously, such parallel principles are inconsistent with standard theism. Thus, the theist is motivated to find reasons to undercut or rebut such parallel principles.

One way the theist might try to *undercut* such principles is to argue that we don't have any good reasons to think that a standard theistic God couldn't create a physical, contingent, limited object out of nothing. A successful argument of this sort would remove any reasons we might have for holding that the parallel principles are exceptionless.

One way the theist might try to *rebut* these parallel principles is to (1) argue for causal finitism, the view that no chain of causes can regress infinitely, and then (2) argue that the first uncaused cause cannot have begun to exist, and cannot be a material stuff out of which other things are made, and cannot be physical or contingent, and cannot have arbitrary limits. A successful argument of this sort would rule out all the parallel principles.

[1] For further reading on the existence of God:

- Richard Swinburne, *The Existence of God* (1974)
- J. L. Mackie, *The Miracle of Theism* (1983)
- J. Howard Sobel, *Logic and Theism* (2003)
- Graham Oppy, *Arguing about Gods* (2006)
- W. L. Craig & J. P. Moreland, *The Blackwell Companion to Natural Theology* (2009)
- Graham Oppy, *The Best Argument Against God* (2014)
- Alexander Pruss & Joshua Rasmussen, *Necessary Existence* (2018)
- Joshua Rasmussen, *How Reason Can Lead to God* (2019)
- Joshua Rasmussen & Felipe Leon, *Is God the Best Explanation of Things?* (2019)
- J. L. Schellenberg, *The Hiddenness Argument* (2015)
- Sebastian Montesinos, "Why I'm an Atheist" (2022)

[2] The labeling of these stages comes from William Rowe.

[3] See Kenneth Pearce's argument in his debate book with Graham Oppy, *Is There a God?* (Routledge, 2021).

[4] This phrase is adapted from Alex Malpass, in Phil Halper, Daniel Linford, and Alex Malpass, "Episode 6: Atheists Debunk Christian Mathematician John Lennox", *The Sci-Phi Show* (Podcast, 2024).

[5] This point is from Graham Oppy.

[6] Joshua Rasmussen, *How Reason Can Lead to God* (IVP Academic, 2019). See also David Bentley Hart, *The Experience of God* (Yale: Yale University Press, 2013), 87-151.

[7] I know that Kenneth Pearce said this somewhere, possibly in this video. Brian Leftow also said that he argues against necessity explaining actuality in his book *God and Necessity* (Oxford University Press, 2012).

[8] This reasoning about arbitrary limits is from Rasmussen, *How Reason Can Lead to God*. See also Joshua Rasmussen & Felipe Leon, *Is God the Best Explanation of Things?* (2019).

[9] I owe this point to Joshua Rasmussen.

[10] This language is used frequently by William Lane Craig.

[11] Thanks for Matt Bilyeu and Jeremy Kidd for extensive discussion of this argument.

[12] This is a simplified version of a principle from Felipe Leon, "The Problem of Creation Ex Nihilo: A New Argument against Classical Theism", In Mirosław Szatkowski, ed., *Ontology of Divinity*. (De Gruyter, 2024), 291-304.

Teleological Arguments

1. The Data of Fine-Tuning

There are many constants and quantities in the initial conditions of the universe that could have equaled a wide range of values, but in fact lie within the unimaginably small range of values which make possible the existence of conscious organisms. If one of these values were different by an extremely small percentage, the universe would not be able to support conscious organisms.[1] For example, possible universes which possess initial states of entropy low enough to be life-permitting represent only $1/10^{10^{123}}$ of the total number of possibilities. In other words, it is vastly more probable that the initial state of entropy would have been high enough to prevent life from ever existing. To help illustrate the odds, imagine that I think of a random atom in the entire observable universe, and I tell you to guess which atom I'm thinking of. It's incomprehensibly unlikely that you'll somehow guess the correct atom out of the vast millions of lightyears of possible atoms. But! Assuming that the initial conditions and quantities of the universe were left up to chance, the probability of the universe's being life-permitting is *incomprehensibly smaller* than the probability of your choosing the correct atom.

2. The Probability of Fine-Tuning on Naturalism

Since naturalism excludes there being value at the base of reality, there is no reason for the universe to select a life-permitting universe instead of a non–life-permitting universe. Therefore naturalism must say that the fine-tuning happened by chance, and so the probability of fine-tuning is incomprehensibly small on naturalism. Let us now consider some objections to this:

1. Differential Life. Some say the existence of life could be more likely than we think, because under different constants and quantities, different types of life could exist. But this objection fails, because some constants are fine-tuned to allow *any* structures to exist: the constants could have equaled a wide range of values, but if they were only slightly different than they are, there would be no structures in the universe at all, or the universe would have imploded after the Big Bang. Therefore, the universe is fine-tuned for the existence of any sort of chemical life.

2. Statistical Certainty. Some say that the probability of the universe being fine-tuned for life is 100%, since we have only observed one universe, and that universe is fine-tuned for life. But this confuses *epistemic probability*—how strongly we should expect something—with *statistical probability*—how often something has actually obtained divided by the number of the observed opportunities. In a world where only one six-sided die has ever been rolled—and it lands on 6—the statistical probability of getting a 6 is 100%, but this just tells us what happened, not whether we should have *expected* it. When we look at the properties of the die and see that its six sides are equal, we can reasonably conclude that we should have expected a 6 at a probability of 1/6.

Similarly with the universe, scientists have examined its properties and seen that the initial constants and quantities seem to have been "put in by hand" rather than required by known laws, and so the probability of the universe being life-permitting is incomprehensibly low.

3. Cosmic Lottery. Perhaps we should not be surprised at the fine-tuning, just as a lottery winner should not be surprised that he won. Improbability does not equal surprisingness. Even though the fact that he won was improbable, it is not surprising, because *someone* had to win. But this objection misses the point. It is true that improbability does not equal surprisingness, the argument is not that this *specific* universe is surprising on naturalism; it is that this *type* of universe—the type that produces conscious organisms—is surprising on naturalism, because it was incomprehensibly more likely that the universe would have been a *life-prohibiting type*. So the fine-tuning of the universe is more like a series of lotteries where one quadrillion men enter and only one woman enters, but she wins every time. This *is* insanely surprising—people would certainly accuse the lottery of being rigged.

4. Nothing Special. The naturalist might respond that conscious organisms are simply nothing special, and so they are no more surprising than random assortments of matter. But this is surely wrong. Surely conscious organisms, with their ability to grow, self-sustain, reproduce, perceive, reason, love, contemplate, and be creative, are more special than random assortments of matter. And surely a universe containing conscious organisms is more special and significant than a universe that implodes immediately after its inception.

5. Different Laws. Some say that under *our* laws of nature, life-permitting universes are extremely unlikely, but under *other* laws of nature, life-permitting universes could be much more likely. If we were to survey every possible set of laws, it might turn out that life-permitting universes are, as a whole, not improbable on naturalism.

But this doesn't seem to remove the *surprisingness* of fine-tuning on naturalism. Even if *every* other set of laws determined a high probability of life, it is still extremely surprising that life exists in a universe whose laws determined an overwhelmingly low probability of life. Suppose you have two dice. The first is the "Laws" die and has a virtually infinite number of sides. The second is the "Constants" die and is a little strange: its number of sides depends on what you get when you roll the Laws die. If you roll the Laws die and get a 1, the Constants die will have $10^{10^{123}}$ sides. But if you roll the Laws die and get anything other than a 1, the Constants die will have only one side. Now, whether the Constants die has one side or $10^{10^{123}}$ sides, it will have exactly one side that says "Life-permitting". Every other side of the Constants die (if there are other sides) will say "Life-prohibiting". Now, if you roll the Laws die and then roll the Constants die, it is unimaginably more likely that you would end up with "Life-permitting" on the Constants die. But what seems bizarre is that you would roll a 1 on the Laws die *and then* roll a "Life-permitting" on the Constants die! It seems very surprising that we ended up with the one set of laws that made life extremely improbable, and yet *still* ended up with the existence of life!

Plus, the objection is plainly false when we consider everyday situations. Suppose that you are playing a game of poker, and one player gets 200 royal flushes in a row. Naturally, everyone accuses him of cheating. But he responds, "Wait a minute! If the universe had different laws, it might be much more likely that I would get 200 royal flushes in a row. So you shouldn't be surprised". Should you believe him? No, his response would be ridiculous.

6. Arbitrary Improbability. Some say that proponents of fine-tuning are arbitrarily setting limits for what should count as "surprising". What if the chance of life occurring was 1 in only 1 million? Or 1 in 1 thousand? If different proponents give different answers based on what they feel would be surprising, then fine-tuning is just a personal feeling about probability. But this objection is unreasonable. Dismissing fine-tuning by saying that a 1 in $10^{10^{123}}$ chance is only "arbitrarily small" seems to be a desperate move. Such a probability is incomprehensibly smaller than any probability that we could even imagine experiencing; if the fine-tuning doesn't need an explanation, then *no event ever* needs an explanation, no matter how bizarre or unlikely it seems. Imagine you are teaching a class. One of your students never studies, and he fails every single assignment, but then he gets a perfect score on the 100-question closed-book take-home test, and in the hallways you overhear him thanking one of his classmates for texting him all the answers. Any teacher in their right mind would think this student was cheating, but a consistent denier of fine-tuning would simply view the probability of the student's ignoring their friend's text and then randomly guessing all 100 questions correctly as merely "arbitrarily small". Such a view of the world is absurd. Surely the success of a significant 1 in $10^{10^{123}}$ chance is truly surprising.

7. Survivor Bias. Some say that if the universe were not life-permitting, we wouldn't observe it, since we wouldn't be alive. That isn't surprising. And since we are alive, we are observing the universe. This is also not surprising. But this objection is irrelevant—premise (1) isn't about how surprising it is that we *observe* the universe to be life-permitting, given that we are alive; it's about how surprising it is that the universe *actually is* life-permitting, given naturalism.[2]

8. Temporary Fine-Tuning. Some say that perhaps, as we continue to conduct scientific study, the apparent fine-tuning will disappear, and we will realize that the presence of life in the universe is not very surprising. But this objection sounds like wishful thinking; it is making a bet on data that we don't have. It also seems unlikely for such incomprehensibly radical values to somehow be accounted for by more study. Moreover, further scientific study could make the fine-tuning appear *more* extreme. If anything, based on past scientific developments, this seems more likely than the possibility of the fine-tuning disappearing.

9. Puddle Analogy. Imagine a hole in the ground which is filled with water after it rains. The edges of the hole fit perfectly with the edges of the water, so that the hole seems fine-tuned for the water to exist in the form that it does. Should we be surprised about this? Clearly not, since the apparent fine-tuning is merely the result of the water's morphing to fill the available space. In a sense, the water was fine-tuned to fit perfectly within the shape of the hole. In the same way, living creatures should not be surprised that the universe seems fine-tuned for life, since in

reality, life is fine-tuned for the universe. But this objection apparently missed the data that most possible universes under our laws do not permit *any* sort of organized structures or life.

10. Dangerous World. One might object that the universe is *not* fine-tuned because it is so dangerous to humans; all of space and most of earth is uninhabitable. But this is a red herring. The two facts that the universe is often dangerous and that most of it is inhabitable don't erase the data of fine-tuning—the data of fine-tuning is still there. And those two facts don't show at all that conscious organisms are not surprising on naturalism. If anything, it supports the fact that conscious organisms *are* surprising on naturalism!

11. Imposed Order. One might object that the appearance of order is an illusion: in reality, the universe is not ordered. We *construct* order in what we see, such as when we "see" animals in the constellations. But this objection just seems wrong. Is the human brain, which developed through millions of years of natural selection, and can host or produce consciousness, no more orderly or sophisticated than a pile of dust? This seems crazy. In addition, if the objector is a physicalist, then surely they think the human brain is orderly enough to construct order out of the universe!

12. Necessity. Perhaps the fine-tuning was necessary. But this seems unlikely, for three reasons: (i) Why should we think that there was *no other way* the universe could have developed? Scientifically, there is nothing that rules out the universe's imploding on itself within a second after the big bang, or exploding too quickly to allow for any structures—and these two scenarios are incomprehensibly more probable than conscious organisms. (ii) The naturalist's view is more costly than views that allow for other possibilities, since she is faced with an enormously complex and precise set of initial conditions that all somehow *must* be how they are, with no intuitive reason for thinking that they are even probable.[3] (iii) The naturalist's response is anti-scientific. Modern science allows for a wide range of different types of universes, so positing that the fine-tuning was necessary contradicts the findings of modern science.[4]

13. Multiverse or Cosmic Landscape. Perhaps every single possible universe is actually real—there is an infinite (or very large) number of universes that contain every possible way that the fine-tuning could have turned out. Similarly, perhaps the universe itself is so incomprehensibly large that it's likely that conscious organisms arose *somewhere* in it.[5] In the multiverse case, the probability of fine-tuning on naturalism is 100%! In the cosmic landscape case, the probability of fine-tuning at least *could* be very high.

The first response to this is that these theories introduce enormous complexity. The multiverse itself is just so extravagant—surely it does internally worse than theism. Similarly, if the universe really is large enough to support a high probability for conscious organisms, it would have to be unthinkably large—trillions and trillions of light years.

Second, the cosmic landscape objection, positing only a single universe, still suffers from the fact that it was incomprehensibly more likely for the universe to either implode after the big bang, or to over-expand and prevent *any* structures from forming—size doesn't help in this case. And

even if it did help, conscious organisms arising' in the cosmic landscape is still far more probable on *theism* than on naturalism![6]

3. The Probability of Fine-Tuning on Theism

On theism, there is an elegant principle that, when combined with some reasonable intuitions, predicts conscious organisms to a probability that is not very low.[7] The principle is "The initial state is perfect". We can combine this with two reasonable intuitions: "A perfect state would involve a being that desires valuable things" and "Conscious organisms are valuable". Putting these three together gives us a high probability that conscious organisms would arise. For example, if God has three equally desirable options—create nothing, create a universe with no conscious organisms, or create a universe with conscious organisms—then it seems reasonable to think that the initial state predicts conscious organisms to a probability of around 1/3.

The naturalist might object that on theism, God could have created many different types of worlds. Since God is omnipotent, surely there were at least $1/10^{10^{123}}$ different ways God could have created the universe, out of which the vast majority do not include fine-tuning. Therefore, fine-tuning is just as unlikely on theism as it is on naturalism.[8] But as we've already seen, all we need are the basic principle of theism and the two reasonable intuitions, and that is enough to significantly raise the probability of fine-tuning on theism.

Hud Hudson objects with the following three "Epistemic Humility Theses":[9]

1. We are in the dark about whether the possible goods and possible evils we know of are representative of the possible goods and possible evils that exist.
2. We are in the dark about whether the necessary connections between the possible goods and possible evils we know of are representative of the necessary connections of this sort that exist.
3. We are in the dark about whether the amount of good or evil that we know exists in a state of affairs is representative of the total amount of good or evil that state of affairs manifests.

According to Hudson, because we are in the dark about these three questions, we are therefore in the dark about whether a universe with embodied, conscious life would be more valuable all-things-considered than a universe without it. Therefore we cannot assign any probability to fine-tuning given theism. This carries some force, but I am not sure about it—whatever uncertainty I have about Hudson's three questions, it still seems that embodied, conscious life carries with it many goods and valuable opportunities (such as relationships and societies) that would make a universe containing it more valuable overall than a universe devoid of such life.

4. Conclusions

Given that the fine-tuning is incomprehensibly improbable on naturalism, but not very low on theism, it appears that the fine-tuning is evidence for theism. Let's now look at two objections to theism that the naturalist might give in light of this.

1. Internal Problems. The naturalist might accept the argument, but then add that it generates an equally strong argument for naturalism: theism takes the *external* problems of naturalism (i.e., its poor power to account for the fine-tuning) and simply converts them into *internal* problems for theism (i.e., the internal complexity required to give a good account of the fine-tuning).
But this ignores what I said earlier: that theism, paired with two reasonable intuitions— "An absolutely perfect state would involve a being that desires valuable things" and "Conscious organisms are valuable"—gives us a high probability that conscious organisms would arise, a probability much higher than that provided by naturalism.

2. Unnecessary Supernatural Being. The naturalist might accept the argument, but then say that the presence of a non-physical supernatural being is enough to make theism a poor theory. Compare with intelligent design, which is almost universally in disrepute in the scientific community. It seems wrong to posit a non-physical, supernatural being when we will probably be able to account for the data just fine through science. And even if we won't be able to, that doesn't mean we should posit a non-physical, supernatural being!

This holds some force, but there are three relevant differences between evolution and fine-tuning. First, it seems to me that scientists have generally solved the problems presented by intelligent design proponents (such as irreducible complexity); whereas I've heard that the more scientists study the initial constants, the more extreme they seem. Second, however surprising it is on naturalism that complex life evolved given the right *earthly* conditions, it seems far more surprising on naturalism that the universe is life-permitting *at all*. Third, unlike evolution, which takes place through a long, widespread, and repetitive process of natural selection, the initial constants and quantities seem to have just been "put in by hand" in the universe's initial state.

As for the internal disadvantages of positing a non-physical, supernatural being, they need to be factored into the entire balanced cumulative case. I do not think they outweigh the external problems that naturalism suffers, given fine-tuning. So in conclusion, it seems that the fine-tuning is strong evidence for theism.

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[1] Simon Friederich, "Fine-Tuning", *Stanford Encyclopedia of Philosophy* (2021),.

[2] Michael Rota, *Taking Pascal's Wager* (Downers Grove: InterVarsity Press, 2016), 111.

[3] The naturalist might respond that making the fine-tuning necessary is simpler because it shaves off possibilities. But whatever advantage this has is outweighed by (i) the complexity costs of the complex initial boundary and (ii) the explanatory costs incurred, because this response runs afoul of the fact that science strongly suggests that the universe *could* have failed to be fine-tuned.

[4] See Kenneth Pearce, in Kenneth Pearce and Graham Oppy, *Is There a God?* (Routledge, 2021), 62-63.

[5] This idea is from Leonard Susskind.

[6] Rota, *Taking Pascal's Wager*, 128-134.

[7] This idea is from Kyle Alander's comments on a Facebook post.

[8] I owe this point to Joe Schmid.

[9] From Hud Hudson, "A Critical Evaluation of the Fine-Tuning Argument for the Existence of God", *City of Bellingham, Washington* (YouTube, 2016).

Ontological Arguments

Ontological arguments reason from the concept of God to the existence of God.[1]

1. Anselm's Ontological Argument

Anselm of Canterbury's ontological argument, developed in 1077, is as follows:

> Truly there is a God, a being than which nothing greater can be conceived.
>
> It is one thing for an object to be in the understanding, and another to understand that the object exists in reality. Even the fool is convinced that something than which nothing greater can be conceived exists in the understanding. For, when he hears of this, he understands it. And whatever is understood exists in the understanding. And assuredly, that than which nothing greater can be conceived cannot exist in the understanding alone. For, suppose it exists in the understanding alone: then it can be conceived to exist in reality, which is greater.
>
> Therefore, if that than which nothing greater can be conceived existed in the understanding alone, the very being than which nothing greater can be conceived would be one than which a greater *can* be conceived. But obviously this is impossible. Hence, there is no doubt that there exists a being than which nothing greater can be conceived, and it exists both in the understanding and in reality.[2]

Here is my formulation of the argument. First, define 'God' as 'that than which nothing greater can be conceived'. Then:

1. God exists in the mind.
2. If God exists in the mind and not in reality,
   then one can conceive of something greater than God.
   (Namely, a God that exists in reality.)
3. One cannot conceive of something greater than God.
   (Since God is the greatest conceivable being.)
4. Therefore, God exists in reality.

(1) is false. Things that exist in the mind are *concepts*. God is not a concept.

(Essay continues.)

One might revise the argument as follows:

1. If God does not exist, then one can conceive of something greater than God.
   (Namely, an *existent* God as opposed to a nonexistent God.)
2. One cannot conceive of something greater than God.
   (Since 'God' is defined as 'the greatest conceivable being'.)
3. Therefore, God exists.

(1) is ambiguous. There are two possible interpretations. One is ⟨If God does not exist, then one can conceive of a thing that—if it existed—would be greater than the nonexistent God⟩. But this is false. ⟨*x* is greater than *y*⟩ entails ⟨*y* is lesser than *x*⟩, which in turn entails ⟨*y* exists and is greater than *x*⟩. After all, *y* cannot be lesser than *x* is there isn't a *y* at all!

The second interpretation is ⟨If God does not exist, then one can conceive of a thing that—if *both* it *and* God existed—would be greater than God⟩. But this is also false; in a world where God exists, *nothing* is greater than God.

One might revise the argument once more:

1. Either only the concept of God exists, or God exists.
2. If only the concept of God exists,
   then one can conceive of something greater than the concept of God.
   (Namely, God.)
3. One cannot conceive of something greater than the concept of God.
   (Since 'God' is defined as 'the greatest conceivable being'.)
4. Therefore, God is existent.

(3) is false; God would be greater than the mere concept of God.

2. Modal Ontological Arguments

Modal ontological arguments reason from the possibility of God's existence to the conclusion that God exists. Here is a simple modal ontological argument. Let 'God' be defined as 'a perfect, conditionally necessary being', where '*x* is conditionally necessary' means 'if *x* exists, then necessarily, *x* exists':[3]

1. It is possible that God exists.
2. Therefore, God exists in at least one possible world.
3. Therefore, God exists in all possible worlds.
4. Therefore, God exists in the actual world.

(2) follows from (1) by definition: A possible world is simply a way that reality could be or could have been. If it is possible that God exists, then in *some possible way* that reality could be or could have been, God exists.

(3) follows from (2) and the definition of 'God': by definition, if God exists in any possible world, then God exists in all possible worlds.

(4) follows from (3) by basic modal logic. The actual world *is* one of the possible worlds—since reality obviously *could* be the way that reality actually is—and so if God exists in *all* the possible worlds, then God exists in the actual world.

The atheist will reject (1) and say that in every possible world, God does *not* exist. It appears that every modal ontological argument will have a possibility premise such as (1) that the atheist already does not accept.

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[1] Further reading on ontological arguments: Graham Oppy, *Ontological Arguments and Belief in God* (Cambridge University Press: 1996).

[2] Adapted from Anselm, *Proslogion*, chapter 2, accessed here.

[3] I say "conditionally necessary"—which means "If God is possible, then God is necessary". I argue that it's technically incoherent to build unconditional necessity into the concept of God. See Bandy, "Concepts".

Beauty Arguments

1. Intrinsic Beauty

Some theists argue that the intrinsic beauty of objects such as mountains, glaciers, galaxies, trees, human beings, music, arts, mathematical equations, and so on are more likely on theism than on atheism, and so are evidence for God's existence.

The atheist will probably doubt that intrinsic beauty exists. After all, what people find beautiful often seems to be purely a matter of taste and preference. There are some women I find attractive but whom other people do not find attractive, and vice versa. It would be silly to say that one of us is right and the other is wrong. It is merely a matter of taste. Similarly, there are some musical pieces I find beautiful but which other people do not find beautiful. It would be silly to say that one of us is right and the other is wrong. And so many atheists will probably reject that intrinsic beauty exists at all, in which case it wouldn't be evidence for God.

If the atheist does believe in intrinsic beauty, they are likely (whether they know it or not) a Platonist, believing that beauty is one of an infinite host of necessary, timeless, uncreated, independent abstract objects; and that a natural object is intrinsically beautiful when the "beauty" object supervenes on it or is exemplified by it. In this case, intrinsic beauty would still fail to be evidence for God.

2. Perceptions of Beauty

The theist may also argue that our *perception* of things as beautiful—even if they aren't intrinsically beautiful—is evidence for theism. But this is doubtful. Our perception of things as beautiful is a result of evolutionary pressures. We perceive certain human beings as beautiful due to evolutionary pressures to find a good mate.[1] I see no reason to think that evolutionary pressures would not directly or indirectly explain every instance of perception of beauty. This seems to undercut the belief that such perceptions are more likely on theism than on atheism.

It is also not obvious that perceptions of beauty would be likely on theism. How confidently should we expect that God would create the world in such a way that conscious creatures experience some things as beautiful? If some things are perceived as beautiful, then other things are perceived as less beautiful, and perhaps even ugly or repulsive—and this difference in perception has allowed for all sorts of misery generated by racism, shaming, rejection of romantic love, and so on—and at what benefit? In any case, it seems that we would need special insight into what God's desires would be before declaring that perceptions of beauty are very likely on theism. After all, taking cues from the skeptical theist, the atheist might say that we *cannot* assign a probability to perceptions of beauty given theism—for all we know, God would have overall outweighing reasons *not* to incorporate perceptions of beauty into the experiences of conscious creatures. And so it seems that even perceptions of beauty are not evidence for God.

3. Mathematical Structures in Nature

What about mathematical structures in nature? For example, bees build their honeycombs according to hexagons (as opposed to just a random hodge-podge of shapes). Consider also the growth of many types of plants according to Fibonacci spirals:

> The Fibonacci sequence is particularly prevalent in plants, comprising more than 90 percent of all spirals found among them. Sunflower heads, pinecones, pineapples, and succulent houseplants all display Fibonacci spirals on their petals, leaves, and seeds.[2]

Now, the view that these structures are "everywhere in nature" seems false—see the endnote below.[3] But setting that aside, we can still ask: are such structures evidence for the existence of God? To answer this, we need to judge how likely such structures are on atheism and on theism. How likely are such structures on atheism? Again, it seems that such structures can be explained by evolutionary pressures. When it comes to building honeycombs, hexagons are at least as efficient as any other shape; it has been proven that any other pattern of shapes of equal area will require at least as much perimeter—and so building materials—as hexagons.[4] Similarly, regarding flowers, Fibonacci spirals generate the most efficient way of packing seeds into the flowerhead; only when the number of clockwise spirals and the number of counterclockwise spirals in a flowerhead "are Fibonacci numbers do the lines curve in such a way that every seed is the intersection of two curves and unused space is minimized".[5]

It is not surprising that, after millions of years of natural selection, species that happened upon the most efficient way of doing things would be the ones to survive in the long run, and thus be the ones that we observe today. And so there doesn't seem to be much reason for thinking that these structures are better explained on theism than on naturalism.

One final comment is that it might be too narrow to focus our attention on naturalism versus theism. A Platonist might look at these instances of beauty and mathematical structures and think that they are evidence not for God but for the Platonic forms. A Taoist might look at them and think that they are evidence for the Tao—the natural way of the world. A Hindu might think that they are evidence for Brahman, conceived as an impersonal, all-pervasive ground of existence. Someone else might think that they are evidence of some impersonal mathematical principle governing the universe. And so it is not clear—from this argument alone, at least—that a divine person with contingent decisions is a better explanation than these alternatives. The upshot is that any aesthetic argument a theist might give for preferring God over naturalism might *equally* support these other non-theistic options.

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[1] Daniel Yarosh, "Perception and Deception: Human Beauty and the Brain", *Behavioral Science* 9.4 (2019): 34.

[2] Chrissy Sexton, "Fibonacci spirals: An unexpected twist in plant evolution", *earth.com* (2023).

[3] Samuel Arbesman, "Math as Myth", *nautil.com* (2013).

[4] Thomas C. Hales, "The Honeycomb Conjecture" (2000).

[5] Benny Pendentes, in answer to "Why does the Fibonacci sequence show up in nature", *reddit* (2016).

Epistemic Arguments

Epistemic arguments for theism,[1] or for the irrationality of certain types of atheism, are arguments that contend that rejecting God's existence entails *epistemic* problems, for example:

- If God does not exist, we do not have any knowledge or justified beliefs.
- If God does not exist, we cannot trust our cognitive faculties (i.e., our reasoning or senses).
- If God does not exist, the threat of skepticism is much higher than if God does exist.

There are many categories of epistemic arguments:

- *Presuppositional arguments*, including transcendental arguments. I have addressed some of these in "Presuppositionalism".
- *Evolutionary arguments against naturalism*, popularized by C. S. Lewis and developed in detail by Alvin Plantinga.
- *Specified epistemic arguments*, which criticize specific versions of atheism—for example, the Boltzmann brain problem is used to criticize an atheistic multiverse. Other epistemic arguments target naturalistic determinism.[2]
- *Epistemic cosmological arguments*, which feature both epistemic and cosmological-style reasoning. The following argument I have adapted from comments by Rob Koons in his 2020 debate with Graham Oppy.[3]

1. The Complexity Skepticism Argument

Consider the principle (P) "Everything that is limited has an explanation". If P is false, then at least one limited thing is unexplained. So how do we know that our experiences are explained? If I have the experience of seeing a car, I normally think that my experience is explained by something—namely, the car in front of me. Now, on naturalism, all our experiences are limited. So if the naturalist denies P, that opens up the epistemic possibility that all their experiences are unexplained. In other words, the naturalist who denies P must admit the possibility that all normal experiences—seeing cars, hearing music, feeling pain, etc.—are not explained by the external world but rather are unexplained, and therefore are completely random, illusory flukes.

We cannot tame this problem by saying that such flukes are *unlikely*. Judgments about the probability of an outcome can be made only when we have some earlier state that is capable of producing that outcome. But for every unexplained fluke, there is *no* earlier state—the illusion of the car, music, or pain simply comes out of nowhere. So there is no way to say that such a fluke is unlikely. Therefore the naturalist who denies P is faced with the possibility that their experiences are completely random, illusory flukes.

But surely our experiences are not completely random, illusory flukes; and surely we do not have to worry about this possibility. The naturalist might reject P and say that every limited *state* has

an explanation. This avoids the possibility of flukes, but it commits the naturalist to either loops or infinite regresses, both of which, I've already mentioned, are problematic.

So it seems we should accept P. What follows? The initial state of physical reality is limited—whether it is some particles, a singularity, or some quantum state. So if everything that is limited has an explanation, then the initial state of physical reality has an explanation. This explanation cannot be physical (since it explains the *initial* state of physical reality), and so it is non-physical. And a non-physical explanation of physical reality fits better with theism than with naturalism.

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[1] The labels 'epistemic arguments', 'specified epistemic arguments', and 'epistemic cosmological arguments' are my own.

[2] See e.g., Jim Slagle, *The Epistemological Skyhook* (Routledge, 2016), Tim Stratton and J. P. Moreland, "An Explanation and Defense of the Free-Thinking Argument", *Religions* 13.10 (2022), 988, and Tim Stratton and Alex Malpass, "Does free will exist? Alex Malpass vs Tim Stratton • Hosted by Andy Kind", *Premier Unbelievable* (YouTube, 2024).

[3] Rob Koons, in Joe Schmid, "From Necessary Being to God? | Dr. Graham Oppy and Dr. Rob Koons", *Majesty of Reason* (YouTube, 2020). See also Suan Sonna, "The Best Case for God's Existence - Robert C. Koons", *Intellectual Conservatism* (YouTube, 2020).

The Problem of Evil

In this essay, I do five things. First, I first examine the data of evil and suffering. Second, I introduce an evidential argument from evil. Third, I discuss theodicies and offer one. Fourth, I consider skeptical theism. Fifth, I offer some concluding thoughts. The literature on this problem is vast, and I can only do my best to summarize the main points of discussion. Many points are skimmed over or completely left out. Please refer to note 31 for further reading if you so desire.

I The Data of Evil and Suffering

I provide three examples of the types of evil that is relevant. Below is the first example:

> So let us begin with some moral common sense. The example I'm about to give is disturbing, but if the subject of discussion is evil and what, morally, to make of it, then it is essential that we have in mind real-life cases. Philosophical positions concerning evil that might sound plausible in the abstract need to be tested against reality, whose horrors outstrip on a routine basis anything that one might otherwise have imagined was possible.
>
> One among endless possible examples of a horrific real-life evil is a drunk-driving accident that occurred in the early morning hours of July 2, 2005, in Long Island, New York. In this accident, a drunk driver traveling 70 miles an hour the wrong way on a highway struck a limousine that was carrying six family members home from a wedding that had taken place earlier that day. In the crash, a seven-year-old girl, who had been a flower girl at the wedding, was decapitated. The limousine driver was also killed on impact, and the flower girl's five-year-old sister, father, and maternal grandparents were critically injured. In the minutes that followed, the flower girl's mother, who had also been in the limousine, pulled herself from the wreckage and began searching for her family. She knew that her five-year-old daughter was alive because she could hear her moans, but as she searched the wreckage she found her seven-year-old daughter's decapitated head. The mother picked it up and clung to it, screaming to her husband that "Katie is dead." In spite of repeated requests by emergency personnel, the mother refused to give up her daughter's head, holding onto it for nearly an hour as she watched the rest of her family being cut from wreckage.
>
> When we examine the world as we might have thought we knew it, we can find no circumstance—moral, empirical, or otherwise—that would seem to supply any good reason to permit such an event to occur.[1]

Below is the second example:

> With torture and extreme trauma comes humiliation. Torture is a situation in which we are stripped of all dignity. … A father remembers not only his own horror and humiliation but also that of his teenage daughter and 9-year-old son, all of whom were detained by the military. He was immediately separated from them and given a choice—he could either reveal the names of those he worked with and then be reunited with his children, or he could refuse to speak and [his children] would be punished. With great reluctance, he chose his children and surrendered the names of his friends to his captors. Upon doing so, he was brought before his son and his daughter, who had been stripped of her clothes.
>
> *[Continuing from the father's perspective:]* I was given another choice; I rape my daughter or the guard does it. I tried to reason with them, telling them that she was an innocent child. I pleaded with them not to humiliate her, not to hurt her, but instead to rape me, to do with me as they wanted.
>
> They laughed and repeated the two choices. I looked at my daughter, hoping that she would tell me what to do. Our eyes met, and I knew then that I could not violate my own daughter, and that I could not save her from those wretched men. I lowered my eyes in shame to keep from seeing my daughter abused. One guard held my face up, forcing me to watch this horrible scene. I watched, motionless, as she was raped before me and her little brother. When they were through, they forced me to do what they had done to her. My own daughter, my son forced to watch it all. How could anyone do that? What kind of men are they? What kind of a father am I?[2]

Below is the third example:

> "Unit 731 … was a covert biological and chemical warfare research and development unit of the Imperial Japanese Army. … Human experiments involved intentionally infecting captives, especially Chinese prisoners of war and civilians, with disease-causing agents and exposing them to bombs designed to disperse infectious substances upon contact with the skin. … 'If Ishii or one of his co-workers wished to do research on the human brain, then they would order the guards to find them a useful sample. A prisoner would be taken from his cell. Guards would hold him while another guard would smash the victim's head open with an ax. His brain would be extracted off to the pathologist.'" Experiments involved amputation and reattachment of limbs without anesthesia, or partial removal of organs, "such as the brain, lungs, and liver". One medical assistant recounted how a man whom the Japanese had infected with the plague … "didn't struggle when they led him into the room and tied him down, but when I picked up the scalpel, that's when he began screaming. I cut him open from the chest to

> the stomach, and he screamed terribly, and his face was all twisted in agony. He made this unimaginable sound, he was screaming so horribly. But then finally he stopped. This was all in a day's work for the surgeons."[3]

One need not look far to find similar examples in history—consider the cases of Furuta Junko, Peter Scully, the Holocaust, the slave trade, the conquest of the Native Americans, and so on. Evil comes in many types—moral, natural, spiritual, and social. Many evils are inscrutable, seem pointless or impermissible, and many of them are so horrific that they call into question the value of one's life as a whole. Consider languishing in permanent illness or disability, especially as the result of a split-second mistake that could easily have been avoided. Consider millions of years of animals living miserable lives and being torn apart by each other, often suffering in agony for multiple days before finally dying. The list goes on.

Ⅱ An Evidential Argument from Evil

Let us define 'Naturalism' as any theory that includes the following claims:

- There is no God, no supernatural beings, and no supernatural forces.
- The universe has evolved to produce conscious creatures with the capacity for pain.

It seems that Naturalism accounts fairly well for the data. Given that we already have conscious creatures with the capacity for pain, it is no surprise that creatures go through daily horrendous suffering. That is simply what happens in an ecosystem such as ours, if no one or nothing is watching over us or acting to prevent or minimize pain. Creatures will be hurt, injured, and killed by each other, by suicide, by accidents, by disease, and by natural disasters.

Let us define 'Theism' as any theory that includes the following claims:

- God exists and is personal, all-loving, and maximally powerful.
- God desires for all creatures to achieve maximal flourishing and fulfillment.
- God does not desire for any creature to suffer.
- God knows the future or at least knows what all the possibilities are.
- God could have prevented all evil by not creating anything.[4]
- The universe has evolved to produce conscious creatures with the capacity for pain.[5]

Note that God isn't supposed to be a merely decent or even amazing ruler of the universe—God is supposed to be a *perfect* ruler. God is supposed to handle things in the *best possible way* in *every situation that ever happens*. With that in mind, consider *all* the evils discussed in Section Ⅰ above, as well as any other evils you can think of. Now let's consider how likely *all* of these evils—or at least a collection of evils just as bad—would be on Theism.

It seems that, at first glance, Theism accounts poorly for the data. The three examples of evil above seem so horrible that it is difficult to imagine an all-loving being allowing them or setting up a world where they were possible—God would "have every reason to prevent these evils".[6] I do not know any good, loving person who would stand by and watch either of those events happen. In case you didn't grasp the first example, imagine getting in a car crash and finding the severed head of your child, or brother, or sister, or parent. Even if that horror led to *some* good—efforts against drunk driving, or the drunk driver's ability to exercise free will, or the dead victims going to heaven, or people becoming more compassionate from hearing about it—it seems implausible to me that those goods would outweigh the horror of what happened.

So the problem of evil, then, is the *tension* between the existence of God and the data of evil and suffering. Arguments from evil against the existence of God appeal to this tension. *Logical arguments from evil* contend that the data of evil, combined with necessary principles, *entail* that God does not exist.[7] *Evidential arguments from evil* contend that the facts of evil, combined with necessary principles, *evidentially support* the view that God does not exist.[8] Arguments from evil can be formulated deductively, inductively, and abductively. Here is an evidential argument in abductive form:

1. The suffering we observe is extremely unlikely on Theism.
2. The suffering we observe is not unlikely on Naturalism.
3. Therefore, the suffering we observe is strong evidence for Naturalism over Theism.

One popular-level theistic response to the problem is to say that atheists have no basis for morality and therefore cannot claim that there is evil in the world. But this is a very poor response, for three reasons: (i) Atheists arguably *can* have a basis for morality, since atheists can be Platonists and believe that moral absolutes are fundamental features of reality, just as theists believe that God is a fundamental feature of reality. (ii) Even if atheists couldn't have a basis for morality, notice that the argument above doesn't appeal to morality at all; it appeals only to *suffering*. So this theistic response is irrelevant. (iii) The atheist can simply run the problem of evil as an *internal critique of theism*—in other words, the atheist can point to two beliefs that the *theist* holds—that God exists and that the evil we observe exists—and argue that *those two beliefs* are inconsistent or in tension with each other. In this case, it is again irrelevant whether the *atheist* has any basis for morality, since argument targets the beliefs of the *theist*.[9]

More careful theistic responses come in two (extremely broad) forms, both of which target premise (1): *theodicies* and *skeptical theism*. Theodicies aim to show that the suffering we observe is *not* extremely unlikely on Theism. Skeptical theism aims to show that we cannot justifiably infer that the suffering we observe is unlikely on Theism.

③ THEODICIES

A *theodicy* is a theory attached to theism that aims to reduce the tension between the existence of God and the data of evil and suffering. Theodicies can be offered more confidently ("this is *probably* a reason that God allows suffering") or more tentatively ("for all we know, this *could be* a reason that God allows suffering"). Theodicies presented in this more tentative way are traditionally called 'defenses'.[10] A myriad of theodicies have been presented over the millenia. Some appeal to more well-known elements (free will, soul-building, a primordial fall), whereas some appeal to less well-known elements (regularity of natural laws, non-intervention policies imposed on God, demonic or archonic activity). Non-traditional theodicies involve limiting God in certain ways (limited knowledge, limited power, limited goodness).

1. Conditions for a Good Theodicy

Merely offering a theodicy might not defeat the problem of evil. The theodicy has to be a *good* one.[11] Below are some conditions for a good theodicy.

① *Scope and Power.* Does the theodicy reduce the tension between God and *all* evils, or only *some* of them? If the latter, then additional theodicies are needed to address the evils not accounted for by the present theodicy. And regarding the evils the theodicy does account for, does it *significantly* reduce the tension between them and God, or only *mildly* reduce the tension?

② *Conflicts with Beliefs.* A theodicy shouldn't *conflict* with other beliefs that are either obviously true or held by the theist—you don't want to end up being inconsistent. For example, you don't want to say that God must *always* let evils run their natural course, because that threatens to remove God's ability to eventually defeat all evil in the end times—something which many theists hold dearly. For another example, you don't want your theory to entail that *humans* should never try to prevent suffering. Obviously, if a child drowns in a pond, then the theist has to believe that God was not obligated to save them, but that if a *human* were on the scene, then the human *would be* obligated to try to save them. The theist needs to formulate their theodicy in a way that God's reasons for allowing evil *don't* apply to us.[12]

③ *Requiring Evil.* If a theodicy appeals to some greater goods, those greater goods must *require* the evils that the theodicy addresses. For example, suppose that somehow, the girl's character-building outweighs the suffering she went through. But if the girl could have achieved that same amount of character-building by going through *less* evil—say, by studying hard for ten years to become a medical doctor—then the evil was *unnecessarily bad*; the character-building does not adequately explain why God would allow that much evil instead of merely the amount required to produce the character-building.

④ *Outweighing Evil.* If a theodicy appeals to some greater goods, those greater goods need to *outweigh* the evils that the theodicy addresses. For example, suppose that a girl who is kidnapped, raped, and tortured for ten years builds character through that experience before she is eventually killed. So *some* good comes out of that. But it won't do to appeal to that character-building to explain God's allowance of the evil. The evil would seem to outweigh the character-building; the character-building doesn't seem to be worth the evil.

⑤ *Deontological Constraints.* A theodicy should not involve God doing anything that is obviously morally wrong to do. For example, a theodicy should not involve any anyone's rights' being violated. If humans have a right not to be subject to X for the sake of Y, then a theodicy that involves a human's being subject to X for the sake of Y is false. Note that even if some good G both requires and outweighs some evil E, it's not guaranteed that allowing E for the sake of G is morally permissible. For example, imagine some nurses who grab a homeless man off the street and kill him in order to harvest his organs, which will save five patients in the hospital. Suppose that killing the man is required to save the five, and saving five lives outweighs losing one life. But it's still *not morally permissible* to kill the man, because killing him would violate his right to life. And it's *not morally permissible* for a head doctor in authority over the nurses to allow them to kill the homeless man.

⑥ *Plausibility.* A theodicy needs to be *plausible*. A remote possibility will hardly count against (1). The theodicy shouldn't be so wildly complicated, implausible, or *ad hoc* that it cancels out any benefit it provides from reducing the tension between God and evil. For example, consider the theodicy that God, when deciding whether to create, only had the power to actualize one of two options: create nothing at all, or create a world with all the horrific evils we see. This would immediately resolve the tension between God and evil, but the theodicy is so *ad hoc*—why in the world would an omnipotent God have *only* those two options and no others?—that its drawbacks cancel out its benefits. The tension is not really resolved but rather moved to a different place; now there is a tension between God's omnipotence and God's creative options that is at least as bad as the original tension between God and evil.

Finally, even if all the theodicies on offer make the evils more likely on theism than the evils would be *without* the theodicies, the evils could *still* be more likely on *Naturalism* than they are on *Theism*, in which case evil is still evidence against God, though weakened by the theodicies.

(Essay continues.)

2. A Broad Greater-Good Theodicy

Consider the good of genuine free will that allows for genuine relationships, involves real responsibility, and can significantly affect others and the world. Consider also independence, bravery, courage, resilience, lucky breaks, dependence on others,[13] determination, patience, progress, refinement,[14] empathy, compassion, motivation to alleviate the suffering of others, sacrifice, forgiveness, rescue, and redemption. Consider the types of characters that can develop in an arena like ours—a world containing the full spectrum from untainted joy to life-altering suffering, as well as both obviously purposeful suffering and seemingly pointless suffering—rather than in a perfect world or a world in which all suffering has an obvious purpose.

If God wants to create a world in which this collection of goods can be freely cultivated by creatures, such a world plausibly requires a lot of suffering. God doesn't *desire* this suffering; God wants to prevent it. But God's desire to prevent it is *outweighed* by God's desire to have creatures who can cultivate these goods and freely enter into a relationship with God.[15]

And so unfortunately for now, God will not consistently intervene to prevent evil, by either blocking people's free will or suspending the laws of nature—this would turn the world into a fake, unpredictable environment less conducive to the goods listed above. Rather, God adopts a limited-intervention policy and generally lets the world run its natural course.[16] This natural course produces a wide range of qualities of life—some creatures' lives end up being good overall, and other creatures' lives end up being bad overall. Eventually, I argue,[17] everyone freely enters into a relationship with God; perhaps for some people, their suffering played a *causal role* in this. And so God permanently redeems all of creation from its brokenness.

Perhaps such a story is more valuable to God than a "Heaven-from-the-Start" story in which no problems are solved, no challenges are overcome, and no one freely chooses to enter into a relationship with God. If the redemption story is the best story overall, then it seems God is both justified and loving in choosing it over an alternative story.[18] In addition, perhaps God does not let a single evil go to waste. Perhaps all creatures who suffer during this life will achieve a sort of martyrdom status in the final state and be surrounded by love, comfort, and respect proportional to the suffering they endured.[19]

This doesn't mean God has planned for every individual evil *to produce* its own outweighing good. If that were the case, we would be unmotivated to prevent any evil, since preventing evil would sabotage God's plan to produce greater goods.[20] So we are stuck with seemingly pointless evils: victims of abuse who commit suicide, drug users who are killed by their addiction, children who grow estranged from and embittered toward their parents, adults who spend their final decades succumbing to mental deterioration, innocent animals abused by depraved owners. God might not have a *specific* reason for each of these, but rather allows the whole lot of them, since a collection of that magnitude, duration, and distribution is unfortunately necessary for God to achieve the goods listed above. If God prevented *all* evils, that would make those goods impossible. So God must arbitrarily choose to allow *some* amount and configuration of evil.[21]

Ⓘⓥ Skeptical Theism

Skeptical theism is the view that, because of our limitations, we should not *expect* to know God's total reasons for allowing evil.[22] When an amateur chess player sees a grandmaster make a seemingly irrational move, the amateur simply won't have what it takes to know what the grandmaster is up to.[23] The difference in knowledge is amplified in the situation involving us and God: If God exists, God is maximally knowledgeable and wise, knowing the exact movements of every particle in the universe and the optimal choice to make in every situation. In stark contrast, humans are severely limited in both perception and cognition, receiving information about the world through only a partially reliable stream of sensations, and often making serious intellectual errors. It would not be surprising if humans were simply unable to comprehend or access all the possible justifying reasons there might be for allowing horrendous evil; we might understand only a sliver of them. If this is right, then we should *not* be quick to say that there are no justifying reasons to allow the horrendous suffering we see. Skeptical theism, then, rejects what is called the 'noseeum inference', which says, "If I do not *see* any morally sufficient reason God could have for allowing the evil I see, then there probably is *no* morally sufficient reason God could have for allowing the evil I see".

One cost of skeptical theism is that it undermines arguments for God's existence that appeal to value judgments about the universe. For example, one version of the fine-tuning argument says that the fine-tuning of the initial conditions of the universe for conscious life is more likely on theism than on naturalism, because a universe with conscious creatures like us is more valuable than a lifeless universe, and so God would be inclined to create conscious creatures, whereas such creatures are incomprehensibly unlikely on naturalism.[24] But if we accept that God has hidden reasons for allowing horrendous, inscrutable suffering that is very clearly negative at face value, and God allows such evils because a world with them is somehow *better* than (or at least as valuable as) a world without them, then this casts significant doubt on our ability to discern what types of worlds are valuable, and therefore casts significant doubt on the belief that a universe with conscious creatures like us is more valuable than a lifeless universe. After all, conscious creatures might entail some hidden *disvalue* that outweighs their value; God, if he existed, might have had outweighing reasons to *not* create conscious creatures.[25]

On a similar note, Paul Draper argues that if there could be unknown reasons God has for *permitting* evil, then there could also be unknown reasons God has for *preventing* evil. These unknown reasons would just "cancel [each other] out and leave us with the known reasons God has for preventing evil", leaving God unjustified in allowing evil.[26] However, the skeptical theist can respond by arguing that we cannot assign *any* probability to the occurrence of evil on theism.

Another worry for skeptical theism is that it potentially gives us reason to distrust divine such as religious experiences and sacred scriptures. If God has hidden reasons for allowing horrendous, inscrutable suffering—if a world with these evils is somehow more valuable than a world without them—then God might *also* have hidden reasons for deceiving us through divine

revelation; perhaps deceiving us is required to bring about some outweighing good that is unknown to us. It seems implausible to respond that God cannot lie because it is always wrong to lie. Surely it is okay to lie if doing so brings about an enormous benefit and does not hurt anyone. Consider the classic case: Nazis come to your door, asking if you're hiding any Jews. If you say No, the Nazis will leave; if you say Yes, the Nazis will search your house and take the Jews to a concentration camp, where they will be tortured and brutally murdered. Surely it is okay to lie in cases such as this—I think it would be *obligatory* to lie. Similarly, perhaps God has an overwhelming reason to deceive us through religious experience and divine revelation.[27]

Ⓥ Final Remarks

The theodicy I offered does seem to help Theism account for evil better than it did at first glance. But does Theism, with the help of the theodicy, account for evil better than Naturalism does? It seems to me that the answer is obviously No, for three reasons. First, Naturalism provides a straightforward and simple account of *all* evil: no all-powerful being is watching out for us; no all-powerful being is in the least interested in preventing anyone's suffering. It is hard to see how any answer for Theism could be *more* straightforward than that.

Second, the theodicy I offered is lacking in five respects: (1) It seems that the evils in the world simply *outweigh* whatever goods God is getting out of them; apart from the afterlife, the universe seems overall to be a negative place to live.[28] (2) It seems that some of the evils are simply *unnecessary* for God's purposes. Did God's purposes really require that mother to discover her daughter's severed head in the car accident? Or for anything that awful to occur? It seems not. (3) It seems that some of the evils are so horrible that it is simply *impermissible* to allow them in order to achieve the goods listed above. (4) Finally, one might doubt whether it is really loving for God to set up the world and let it become a horrendous place, just so that people can turn to God—the very God who let the world become a horrendous place.[29] It almost seems like a farce, like a twisted experiment—why would we praise God for "redeeming God's broken creation" when it was God who intentionally let it become broken in the first place? (5) The theodicy I mentioned seems to fall far short in addressing animal or insect suffering.[30]

And so I conclude that, in the absence of some form of skeptical theism, horrendous suffering is serious evidence for Naturalism over Theism.[31]

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[1] Sharon Street, "If Everything Happens for a Reason, Then We Don't Know What Reasons Are", in *Challenges to Moral and Religious Belief* (Oxford University Press, 2014).

[2] Ellen Gerrity, Farris Tuma, and Tereance Keane, ed., *The Mental Health Consequences of Torture* (Springer New York, 2001).

[3] Wikipedia, "Unit 731".

[4] Contrast Thomas Jay Oord, *The Uncontrolling Love of God* (IVP Academic, 2015).

[5] I have built this last proposition into both theories to stay focused on the data of evil; this is equivalent to holding conscious, pain-receptive organisms in the *background knowledge*.

[6] Sebastian Montesinos, "Why I'm an Atheist", *Naturalism Next* (Blog, 2022).

[7] See J. L. Mackie, "Evil and Omnipotence", *Mind* 64.254 (1955): 200-212 and James Sterba, *Is a Good God Logically Possible?* (Palgrave Macmillan, 2019). I owe these characterizations of logical, evidential, deductive, inductive, and abductive arguments from evil to Justin Mooney.

[8] See William Rowe, "The Problem of Evil and Some Varieties of Atheism", *American Philosophical Quarterly* 16.4 (1979): 335-341 and Paul Draper, "Pain and Pleasure: An Evidential Problem for Theists", *Noûs* (1989): 331-350.

[9] I owe these three responses to Joe Schmid.

[10] This language goes back to Alvin Plantinga.

[11] The following conditions I owe to Joe Schmid and Justin Mooney, in "The ULTIMATE Guide to the Problem of Evil", *Majesty of Reason* (YouTube, 2025). The structure of my essay—argument types, theodicies, skeptical theism—is based on Mooney's remarks in this video.

[12] This concern I owe to Luis Oliveira, in Joe Schmid, Justin Mooney, and Luis Oliveira, "If God exists, is everything permitted? | Dr. Justin Mooney & Dr. Luis Oliveira", *Majesty of Reason* (YouTube, 2024).

[13] Max Baker-Hytch, in Ryan Mullins, "God, Evil, and the Multiverse with Max Baker-Hytch", *The Reluctant Theologian Podcast* 21 (Podcast, 2019).

[14] This refinement might take many lifetimes to complete; perhaps the present life is merely the beginning of the entire story. See John Hick, *An Interpretation of Religion* (2nd ed., Yale: Yale University Press, 2004), 118-121 and Hick, *Evil and the Love of God* (2nd ed., San Francisco: Harper & Row, 1985).

[15] For historical data regarding the significant growth of Christianity in severely oppressed regions, see J. P. Moreland and William Lane Craig, *Philosophical Foundations for a Christian Worldview* (2nd ed., Downers Grove: InterVarsity Press, 2017), 547-549.

[16] Perhaps God is *restricted* to maintain limited intervention. See Eric Reitan, "A Deontological Theodicy? Swinburne's Lapse and the Problem of Moral Evil", *Faith and Philosophy* 31.2 (2014): 181-203 and Justin Mooney, "How to Solve the Problem of Evil: A Deontological Strategy", *Faith and Philosophy* 36.4 (2019): 442-462.

[17] See Bandy, "Defending Universalism".

[18] Anonymous, "Evolution, Animal Suffering, and the Cross" (2020). The idea of God's allowing humanity to experience evil as analogous to a parent's allowing their child to experience evil was adapted from this paper.

[19] John Schneider, *Animal Suffering and the Darwinian Problem of Evil* (Cambridge: Cambridge University Press, 2020), 164-200. Cited in Anonymous, "Evolution, Animal Suffering, and the Cross".

[20] Thanks to Kirk MacGregor for this point. William Hasker makes a similar point.

[21] Peter van Inwagen, "The Magnitude, Duration, and Distribution of Evil: A Theodicy", *Philosophical Topics* 16.2 (1988): 161-187.

[22] See Perry Hendricks, *Skeptical Theism* (Palgrave Macmillan: 2023) and Perry Hendricks, in Joe Schmid, "Skeptical Theism and the Problem of Evil | Dr. Perry Hendricks", *Majesty of Reason* (YouTube, 2023),.

[23] The chess example and the phrase "have what it takes" I owe to Daniel Speak.

[24] See Bandy, "Teleological Arguments".

[25] Hud Hudson, "The Father of Lies?", *Oxford Studies in Philosophy of Religion* 5 (2014): 161-162.

[26] Montesinos, "Why I'm an Atheist".

[27] Hudson, "The Father of Lies?"

[28] "Suppose you had a button that allowed you to deprive a serial killer of their ability to kidnap and murder people. Any rationally thinking, moral person would press this button, because they would recognize that … this individual's freedom is not worth the suffering it entails. Indeed, the idea that free will is worth any horror it permits is fundamentally at odds with the basic way we have set up society: if someone commits a horrendous crime, we put them in jail, we do not preserve their freedom. The implicit value judgment in such laws is that the disvalue of the pain and suffering resulting from people's freedoms outweighs the freedom to inflict this suffering". From Montesinos, "Why I'm an Atheist".

[29] Thomas Jay Oord, *God Can't* (SacraSage Press, 2019).

[30] I do not find the "God wants there to be consistent, predictable laws of nature" response to be a good solution to the problem of animal and insect suffering, since it seems unlikely that God would have created "consistent, predictable laws" that would resulted in millions of years of horrendous animal and insect suffering.

[31] Note how we need to look at *both* theories to reach this conclusion. It is one thing to experience a horror and recognize acutely just how unlikely it seems that God would just stand by and watch it happen. But it is an extra step to conclude that such a horror is *evidence* against God. After all, that horror could be even *less likely* on atheism!

For further reading:

- John Mackie, "Evil and Omnipotence", *Mind* 64.254 (1955): 200-212.
- Alvin Plantinga, *God, Freedom, and Evil* (Eerdmans, 1989).
- James Sterba, *Is a Good God Logically Possible?* (Palgrave Macmillan, 2019).
- Peter van Inwagen, *The Problem of Evil* (Oxford University Press, 2008).
- Marilyn McCord Adams, *Horrendous Evils and the Goodness of God* (Cornell University Press, 1999).
- Daniel Speak, *The Problem of Evil* (Polity, 2014).
- Eleonore Stump, *Wandering in Darkness* (Oxford University Press, 2012).
- John Hick, *Evil and the Love of God*, 2nd ed. (Harper & Row, 1985).
- William Hasker, *The Triumph of God over Evil* (IVP Academic, 2008).

The Problem of Hiddenness

1. Honest Seekers and God's Desires

It seems obvious that some people genuinely seek after a relationship with God, but end up not finding God and instead remain atheistic or agnostic against their will. Sure, many people resist God, or they're dishonest, or they deceive themselves, but it does seem that lots of people *really want* to know God, but they simply don't believe, because the evidence for God is so poor from their point of view, and they don't have any personal experiences that point in the direction of God. Sure, many people *do* end up having a stronger faith after periods of intense doubt and seeking, but others do not. Other people live out the rest of their days without ever finding God in any meaningful or fulfilling way. William Rowe is a recent example in philosophy of religion.

It seems that if theism were true, God would more readily reveal God's self to *those* people. If God is all-knowing, then God would *know* what they would need in order to believe in God's existence; and if God truly desires a relationship with them, then God would *provide* what they need in order to believe—even if it's something small, such as a mini-miracle, a voice, a feeling of God's presence, a serendipitous sequence of unlikely events, or a sense of confidence in God's existence. Indeed, if a relationship with God is the highest good that *any* finite person might achieve, and perhaps the *primary* reason that God made finite persons in the first place, then surely any reasons God might have for being hidden would be *outweighed* by God's reasons for revealing God's self to honest seekers.[1] So it seems that the data of divine hiddenness is evidence against the view that there is a God who desires a relationship with all finite persons.

Michael Rea categorizes several different types of hiddenness, which I have adapted here:[2]

- *Ambiguous Evidence:* Some people, when they examine the evidence for and against the existence of God, find it ambiguous and unconvincing that God exists.
- *Limited Religious Experience:* Some people feel a profound and sustained absence of God, or at least a lack of the presence or love of God, either in ordinary life or in religious life.
- *Reasonable Nonbelief:* Some people fail to believe that God exists, and this lack of belief is not due to any sort of intellectual error.
- *Non-Resistant Nonbelief:* Some people fail to believe that God exists, and this lack of belief is not due to their trying to resist God.

(Essay continues.)

2. Schellenberg's Argument

J. L. Schellenberg, by far the most prominent and rigorous defender of the hiddenness argument against theism, has developed the argument in deductive form, which I've adapted here:[3]

1. If God exists, then God is perfectly loving.
2. If God is perfectly loving, then God is always open to a personal relationship with any finite person.
3. If God is always open to a personal relationship with any finite person, then no finite person is ever nonresistantly in a state of nonbelief about whether God exists.
4. Some finite persons are or have been nonresistantly in a state of nonbelief about whether God exists.
5. Therefore, God does not exist.

(1) seems true because God, if God exists, is perfect in every way.

(2) seems true because perfect love by its very nature entails, in the very least, being *open* to a relationship; no parent would be called 'perfectly loving' to their child if they generally ignored their child and were never around. If God is open to a relationship with a finite creature, then God would *at least* remove any barriers to a relationship other than the barrier of the finite creature's own resistance to God.

(3) seems true because an obvious barrier to a relationship is nonbelief; you can't have a meaningful relationship with someone if you don't even believe that they *exist*.

(4) seems true because there are plenty of people who have honestly become agnostics or atheists, often against their will, despite seeking after God and trying to remain theists; or who have been nonbelievers their whole lives and haven't really thought about God at all; or who lived before theistic religions came on the scene and didn't even have a *concept* of a theistic God.

2. Two of Andrew Cullison's Responses

Andrew Cullison offers two responses to (3), which I have adapted here.[4] The first is that divine hiddenness allows for acts of genuine self-sacrifice. If you are convinced that God exists and that you will begin to enjoy everlasting bliss when you die, it is hardly a sacrifice to lay down your life for someone else, or to sacrifice significant portions of your life for someone else. On the other hand, if you aren't sure that you'll continue to exist after death, then it *certainly is* a sacrifice to lay down your life for someone else, or to sacrifice significant portions of your life for someone else. You could really be giving up a lot and not expecting anything in return. Such acts of genuine self-sacrifice are valuable and so provide God *some* reason to be hidden. This seems right, and so it seems to lessen the problem somewhat.

Second, Cullison argues that belief in God's existence is not required for a relationship with God. Suppose that you are an agnostic, or even an atheist, but in hopes that God exists, you spend the rest of your life praying and seeking after God, even though you never seem to get anything in return except for sustained silence and absence. Now suppose that you die and meet God face-to-face, and spend the rest of eternity with God. Are we to say that your relationship with God began only once you met God face-to-face? No, Cullison argues: surely the relationship began when you started praying and seeking God during your lifetime.

But this seems wrong. First of all, it's hardly a relationship if the communication overwhelmingly seems to be a one-way street. Is this the type of "relationship" that a loving God would desire with finite creatures? A relationship wherein people seek after God and beg for God's presence, and get nothing but silence? Second of all, in my experience, it is frustrating, discouraging, and exhausting to pray and seek after God and not only get nothing in return, but be confident that I'll *never* get anything in return except for silence. It seems to me that such a "relationship" is phony, deceptive, and detrimental. In more extreme cases of unbelief, it may involve making choices that are irrational and go against the evidence. If, after a long examination of the evidence, someone concludes that there is no God, it would be bizarre for God to desire them to *ignore that* or *act against that* and keep on trying to find God anyway, especially if God isn't going to respond to their further seeking, and so such seeking will just lead to frustration.

It seems that such relationships do not provide God reason to remain hidden, but rather strengthen God's reasons to reveal God's self. Such negative relationships would surely be improved if God gave the agonizing seeker *something* that made them just a little more confident that God existed and personally loved and cared about them. Of course, just like with suffering, some people end up stronger and more resilient due to having to deal with and work through issues in the face of divine hiddenness. So a case for a free-will or character-building theodicy can be made. But, just like with suffering, we cannot ignore the cases in which people end up, against their will, in a *worse* state overall due to divine hiddenness.

3. Skeptical Theism

The problem of hiddenness is similar to the problem of evil in that the theist's concern is to identify or at least open the possibility of reasons that God does not, cannot, or is not permitted to intervene in the world in ways that would seemingly make it better overall. As such, it seems that skeptical theism is a valid response to hiddenness as well as suffering. God might have outweighing reasons to be hidden that are unknown or unknowable to us.[5]

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[1] This point is from J. L. Schellenberg, although I obtained it from Sebastian Montesinos.

[2] Michael Rea, *The Hiddenness of God* (Oxford University Press, 2018)

[3] See J. L. Schellenberg, *The Hiddenness Argument* (Oxford University Press, 2015), and the bibliography therein. For a rigorous response, see Rea, *The Hiddenness of God*. I haven't gotten around to incorporating anything of Rea's response in this essay.

[4] Andrew Cullison, in Jordan Hampton, "A Hidden Weakness of Divine Hiddenness (Dr. Andrew Cullison)", *The Analytic Christian* (YouTube, 2022).

[5] For my main thoughts on skeptical theism, see Bandy, "The Problem of Evil".

The Problem of Religious Diversity

1. The Argument from Non-Theistic Religions

1. There are multiple religions that
   (i) have many strongly and genuinely devoted adherents,
   (ii) have a long, robust tradition,
   (iii) have a sophisticated, developed belief-system,
   (iv) contain religious experiences, and
   (v) lead to more virtuous behavior,
   and some of these religions acknowledge a non-personal foundation of reality.
2. If (1) is true, then if God is personal, God is intentionally allowing a massive amount of deception about God's self that is not due to humans' intentionally deceiving each other.
3. God is not intentionally allowing a massive amount of deception about God's self that is not due to humans' intentionally deceiving each other.
4. Therefore, God is not personal.

To clarify, the last part of premise (2) doesn't say that God doesn't allow *any* humans to intentionally deceive each other—it merely states that, out of all the deception about God's self that God allows, there is a massive amount of it that is *not* due to humans' intentionally deceiving each other. In other words, lots of the deception is simply the result of humans' responding genuinely to what they take to be revelations of God or the ultimate.

To me, (1) and (2) seem obvious, and so the crucial premise is (3). If God is personal, would God really let these sorts of religions develop? Would a personal, loving God allow so many people to find positive, existential fulfillment within robust religious traditions that affirm a non-personal ultimate? I am not sure. If God desires all to freely enter into a relationship with God, the world certainly doesn't reflect that:

> Many people think that the world should be set up such that we have a choice as to whether to believe in God. Bracketing whether choosing to believe something is a coherent concept, one problem with this claim is that the situation we currently have is not one where all persons have the free choice to believe or not believe in God. Indeed, the overwhelming majority of people lack that choice. Most persons were born in societies where the concept of [theism] did not even exist to contemplate. Thus, the claim that God would want to offer persons a free choice to believe in [God] is radically out of line with the world as it appears.[1]

2. The Argument from Evolutionary Religion

It's also important to note that the modern monotheistic religions of Judaism, Christianity, and Islam are relatively new on the scene in human history. Humans have occupied earth and have been physically and mentally evolving for almost one million years, and evidence suggests that they have had religious traditions and practices for most of their history. The *axial age*—around 700 to 200 BCE—saw dramatic changes in religious and philosophical thought, with prominent religious figures arriving on the scene such as Confucius, Lao-Tzu (if he existed), the Buddha, Zarathustra, Mahavira (Jainism), Isaiah, and (later on) Jesus. Some religions, such as Judaism, shifted over time from polytheism and idolatry to monolatry and finally to strict monotheism. Some of these religions involved hope for an afterlife or at least the restoration of an imperfect world, in contrast to the earlier tribal religions (such as that of the Native Americans) that were more focused on maintaining the status quo, the cycle of life and death. The idea of an ultimate, transcendent foundation of reality developed in Judaism and Neoplatonism. These elements are surprising, or at least give one pause, if one believes in the rather anthropomorphic monotheism that many theists hold to nowadays. To syllogize the argument:

1. If there were a personal God, then God would have clearly revealed that God is personal to humans at the beginning of human evolutionary history.
2. God did not clearly reveal that God is personal to humans at the beginning of human evolutionary history.
3. Therefore, there is no personal God.

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[1] Sebastian Montesinos, Cognitive Science of Religion paper.

GOD

Models of God

1. Classical Theism

On classical theism, God is not a being among other beings. A *being* is something that is composed of an *essence* and an *existence*. One's *essence* is one's nature or type; for example, there is a *canine* essence instantiated by every dog and a *human* essence instantiated by every human. By contrast, one's *existence* is one's individual self or instantiation that distinguishes one from others. For example, two different dogs have the same essence (*caninity*) but different existences. On classical theism, God does not have a distinct essence and existence—rather, God's essence *is* God's existence. Therefore, God is not a being among other beings. God is absolute Being itself; God is the pure act of being; God is undifferentiated unity.[1]

It is important to remember that Being is not a *thing* or *object*; rather, Being is an *act*. And God just is that act—God is the pure act of Being. Because of this, there is no potential within God, since God is purely actual. In fact, God is *pure actuality* itself.

Since God is not a being, God does not fall into a class of objects; God transcends the categories of genus and species altogether. In addition, God is timeless, unchangeable, unalterable, and absolutely simple; there are no distinctions within God. All of God's properties—goodness, knowledge, power, etc.—are identical with God and so identical with each other. God is goodness itself, truth itself, beauty itself, power itself, knowledge itself, and so on.

Classical theists believe in the three traditional divine properties—omniscience, omnipotence, and moral perfection—and add the following four:[2]

1. *Simplicity.* God has no internal distinctions or complexity. All of God's properties are necessary and identical with each other and with God.
2. *Timelessness.* God is not located or extended anywhere in time. Thus, God does not exist right now, God never existed in the past, and God will never exist in the future. Rather, God exists in a single, changeless, static, timeless state.
3. *Immutability.* God cannot change in any way, intrinsically or extrinsically.
4. *Impassibility.* God cannot be influenced or affected in any way by anything external to God.

One might wonder why the belief that God is simple would entail the stronger doctrine that all of God's properties are literally just God himself. The answer is that classical theists typically believe that a property of a thing is a *part* of that thing. On this view, if God had at least two distinct properties, God would have at least two distinct parts, which entails that God would have at least one proper part. But, since God is simple, God cannot have any proper parts (since all that is "in" God must be God himself[3]). Therefore, God cannot have at least two distinct parts, and so God cannot have at least two distinct properties. Whatever we might call a "property" of God is just God himself.

1.1. Objections to Classical Theism

① *Distinct properties.* Truth and love are *not* identical. Knowledge and power are *not* identical. Goodness and existence are *not* identical. And so on. These are distinct concepts, so God cannot be identical with all of them. Similarly, *favor* and *sadness* are distinct properties, and so if God has both of them, then classical theism is false. Moreover, *love* and *hatred* are different properties. Love is a positive emotion of valuing something or someone and desiring their well-being. Hatred is a negative emotion of displeasure toward something or something.

② *No knowledge about God.* Classical theism entails that there is almost nothing to know about God. Once we say that God is Being itself, it is difficult to see what else we could say both truthfully and literally about God. We cannot say that God has thoughts, or makes choices, or is related to anything else. After all, God is pure Being itself, and so transcends such things as thoughts, choices, and relations. We can try to make analogies or partially true statements about God, but analogies and merely partially true statements are—well, literally false.

③ *No relationship.* On classical theism, God cannot be in any relationship with anyone else. The classical God cannot have any complex or contingent thoughts, nor perform any contingent acts. And the act of *thinking of Chris Bandy* would be a contingent act, since I am a contingent being. Therefore, creating, or thinking of, or loving a contingent creature is impossible for the classical God. Remember, the classical God is pure Existence, pure Being, pure Actuality. Not a person you can interact with or hope to hear from. Not a person who loves *you* or cares about *you* or anyone else. If classical theism is true, all the following statements are false:

- God loves you.
- God hears your prayers.
- God is sovereign over creation.
- God allowed the suffering in this world for a reason.
- God chose for at least some humans to be saved.
- God is displeased with sin.
- God inspired the Bible.
- God became incarnate.
- God raised Jesus from the dead.

These are all false on classical theism, because they describe contingent divine actions. Such actions are contingent because the universe is contingent; God could have chosen not to create it.

④ *No freedom.* The classical God doesn't have leeway freedom—i.e., the ability to choose from among multiple options. This is for the simple reason that the classical God cannot perform any contingent actions. Only contingent actions are capable of being leeway free. Not to mention that the classical God can never move in any sense from a state of pre-decision to a state of decision.

⑤ *No control.* Consider the following four mutually inconsistent claims:

1. God (in *some* sense) chose specifically to create this particular universe.
2. All of God's choices are necessary (since they are identical with God).
3. If a divine choice specifically to create some thing X is necessary, then X is necessary.
4. This particular universe is contingent.

(1) is true, since God must have *some* sort of intentional control over which universe gets created. Otherwise a random universe more or less pops into existence with God having zero say.

(3) is trivially true; God's choice to create something cannot be thwarted.

(4) is true, since God was free to *not* create this particular universe.

Therefore, (2) is false. Not all of God's choices are necessary. So classical theism is false.[4]

Classical theists might argue that they *can* consistently reject (2), by distinguishing between God's *internal acts*, which are identical with God and thus are necessary, and God's *external acts* (such as choosing specifically to create this particular universe), which are contingent. *Reply:* This is mistaken. If choosing to create this particular universe is an act *of God's*—not an act of someone else, nor the product of random choice or an otherwise inanimate source, but an act *of God's*—and it is contingent, then God *could have* chosen to do something else instead. That entails unactualized potential within God, which violates a central tenet of classical theism that God is pure act and has no unactualized potential.

Classical theists might reject (3) by saying that talk of God's choice specifically to create this particular universe is merely an analogical way of talking about God's eternal knowledge of all the possible universes that could have existed. The fact that this knowledge is necessary does not imply that the universe itself is necessary. *Reply:* This is mistaken. Merely knowing all the possibilities does *not* count as specifically choosing one particular possibility, even analogically. If I roll a 1000-sided die and it comes up 947, you would *never* say that I "analogically chose" 947. Sure, I knew all the possible numbers that could come up (1, 2, 3, … 1000). But I didn't choose 947 *in any sense*. Merely knowing all the possibilities doesn't count as choosing one particular possibility, even analogically.

⑥ *No Trinity.* Classical theism, teaching that there are no distinctions within God, is inconsistent with the doctrine that the three members of the Trinity are distinct from each other. (See "The Trinity".)

⑦ *Temporal God.* Classical theism is subject to arguments against a timeless God. (See "God and Time".)

⑧ *Anti-Biblical.* Classical theism is anti-biblical. (See "The Bible and Classical Theism".)

2. Neoclassical Theism

On neoclassical theism, God is a personal being who is the independent, ultimate foundation of reality,[5] and who can at least sometimes interact with the rest of reality.[6] God possesses all of the great-making properties to the maximal degree possible: goodness, knowledge, power, rationality, love, and so on. God is not identical to these properties—God is not goodness itself. Rather, God is a being who is perfectly good. In addition, God is a *person* who has an "inner life" that includes consciousness, thoughts, beliefs, and desires.

Since God is a being, God falls into a class of objects, even if God is the only member in that class. A common name for this object is a *soul*—a simple, immaterial, non-physical substance capable of conscious experience.

Since God is the independent, ultimate foundation of reality, nothing transcends God because there exists no object that is even more ultimate than God. However, on some views, certain things *constrain* God—perhaps God is constrained by logical, mathematical, or moral laws, not because they are these towering forces that exert power over God, but because it would simply be absurd and impossible for God to create a contradiction, or for God to make 1+1=3, or for a perfect God to commit evil. In addition, God is not the foundation of reality in the sense that God is beyond reality itself. Reality is simply everything that exists. Since God exists, God is part of reality. God is the foundation of reality in the sense that God is the *foundational part* of reality.

Neoclassical theists thus reject divine simplicity. Neoclassical theists are divided about the other three classical attributes (timelessness, immutability, and impassibility). Neoclassical theists typically hold that God has exhaustive foreknowledge of the future.

3. Open Theism

Open theism could be considered either a version of neoclassical theism or a separate view. Open theists typically accept the three traditional attributes (omniscience, omnipotence, and moral perfection) but reject all four of the classical attributes (simplicity, timelessness, immutability, and impassibility). The distinctive view of open theists is that God does not have exhaustive foreknowledge of the future—God has designed the world so that at least some future events are "left open" so that God only knows that they occur *once they occur*, not beforehand. I discuss open theism in slightly more detail in "Divine Sovereignty and Human Freedom".

4. Process Theism

Process theism is the view that God and the world process are in an ongoing symbiotic relationship that is without beginning or end. Both God and the world process need each other in some way—God needs the world in order to have a sphere in which to work, and the world process needs an intelligence to guide it along and keep it from descending into chaos.

"God cannot ordain any events in creation. The most God can do is persuasively lure or influence the world process to develop in this way rather than that way. [This] is because, according to process metaphysics, every element within … the world process, from the simplest quantum level thing to the most complex, … has a metaphysically ineliminable spark of creativity. A kind of free agency or, at the rudimentary type of levels, … a sort of epicurean swerve. … And this ineliminable degree of creativity allows every element of the world process to develop in ways contrary to God's influence, no matter how much influence God exerts. … So God can never be guaranteed of getting his way."[7]

5. Theological Finitism

Theological finitism or *limited-God theism* is the view that God is limited in such a way that God is not perfect. It is common for theological finitists to give up omnipotence, in response to either the problem of evil[8] or some problem with omnipotence.[9]

The theological finitist might instead give up moral perfection. Such appears to be the case for *abandoment deism*, the view that God created the world but does not care very much about it or its creatures; God more or less abandoned the world some time after creating it and getting its physical processes up and running. Another view, *aesthetic deism*, theorized by Paul Draper, teaches that God's concern for aesthetic values sometimes trumps God's concern for moral values; this might explain why God would allow hundreds of millions of years of animal suffering: perhaps the story of trillions of organisms coming into existence, fighting for their lives, dying, and evolving over time to eventually produce the breathtaking complexity of the human species, with all its tragedies and comedies, is aesthetically valuable in a way that gives God a reason not to avoid or lessen all the suffering that these organisms endure.

6. Panentheism

Panentheism is a difficult view to nail down, but it seems that all panentheists believe one or both of the following two doctrines:

1. The universe is "in God" in some way, perhaps as a proper part of God.
2. The universe, or at least the fact that *some universe exists*, is necessary. Thus, God had no control over *whether* to create the universe. Either God necessarily created or emanated the universe at some time in the past, or God has *always* been "creating" or influencing the universe for infinitely long.

7. Pantheism

On pantheism, God is identical with the universe. One way that this might work is considering the universe as a complex, conscious system. Just as a brain is (presumably) conscious because it is complex enough and involves the right patterns and processes, so the universe is conscious because it is complex enough and involves the right patterns and processes. On this view,

normal-sized objects, including human bodies, are parts of God. On this view, one would have to give up thinking that God is morally perfect, since the universe contains moral evil.[10]

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[1] See David Bentley Hart, *The Experience of God: Being, Consciousness, Bliss* (Yale University Press, 2013) and William F. Vallicella, "Divine Simplicity", *Stanford Encyclopedia of Philosophy* (2019). Classical theists sometimes refer to God as "a being", but in my experience, classical theists generally take such language to be analogical. And so I would disagree with Joe Schmid, "LEVEL UP by avoiding these mistakes about God", *Majesty of Reason* (YouTube, 2024), when he says that it is a mistake for classical theists to say that God is not a being. Schmid says that Anselm and Aquinas refer to God as "a being", but this appears to be false, since Anselm and Aquinas wrote in Latin, which doesn't have an indefinite article.

[2] I owe these four properties to Ryan Mullins. Gavin Ortlund, in his debate with Ryan Mullins, states that divine simplicity is the view that God has no parts. But this is not specific enough; neoclassical theists can believe that God has no parts but has distinct properties. See Ortlund, "Is Divine Simplicity True?", *Truth Unites* (YouTube, 2024).

[3] For a clear presentation of this view, see James Dolezal, *All That Is in God* (Reformed Heritage, 2017).

[4] Formally:

1.	$\exists x\, Gxu$	
2.	$\forall x \forall y\, (Gxy \rightarrow Nxy)$	
3.	$\forall x \forall y\, (Nxy \rightarrow Ny)$	
4.	$\sim Nu$	
5.	$Gau \rightarrow Nau$	∀ Elim 2
6.	$Nau \rightarrow Nu$	∀ Elim 3
7.	$Gau \rightarrow Nu$	HS 5, 6
8.	$\vert$ Gau	CPrem
9.	$\vert$ Nu	MP 7, 8
10.	$\vert$ $p \cdot \sim p$	EFQ 4, 9
11.	$p \cdot \sim p$	∃ Elim 1, 8, 10

The reasoning behind this argument is inspired by one of the points from Joe Schmid, "The Fruitful Death of Modal Collapse Arguments", *International Journal for Philosophy of Religion* 91 (2022): 3-22. See also Steven Nemes, in Ryan Mullins, "Episode 23, Divine Simplicity and Modal Collapse with Steven Nemes", *The Reluctant Theologian Podcast* (Podcast, 2019) and Christopher Tomaszewki, "Collapsing the modal collapse argument: On an invalid argument against divine simplicity", *Analysis* 79.2 (2019): 275–284. Thanks to Eric Bodlak and Isaac Lopez for discussions on earlier versions of this argument. Thanks to Deborah C. Smith for helping me with an earlier version of this proof.

[5] See Joshua Rasmussen, *How Reason Can Lead to God* (IVP Academic, 2019).

[6] See the work of Ryan Mullins and William Lane Craig for more details. In particular, J. P. Moreland and William Lane Craig, *Philosophical Foundations for a Christian Worldview*, 2nd ed. (InterVarsity Press, 2017).

[7] Alan Rhoda, in Taylor Cyr and Matt Flummer, "Episode 84: Free Will and Providence with Alan Rhoda", *The Free Will Show* (Podcast, 2024).

[8] For example, Harold Kushner, *When Bad Things Happen to Good People* (Anchor, 2004) and Thomas Jay Oord, *God Can't* (SacraSage Press, 2019). Oord's view just seems to be process theism, but I think Oord does not identify as a process theist. He also (I think) believes that God is omnipotent, but he believes that omnipotence does not allow metaphysically impossible actions such as forcing any part of creation to go a certain way.

[9] For example, Scott Hill, "Giving up omnipotence", *Canadian Journal of Philosophy* 44.1 (2014), 97-117.

[10] This section is adapted from Andrei Buckareff, in Ryan Mullins "Episode 36, Panentheism and Pantheism with Andrei Buckareff", *The Reluctant Theologian Podcast* (Podcast, 2020).

Referring to God

Do Christians and Muslims believe in the same God? This question can be interpreted in two ways. The first is, "Do Christians and Muslims have the same *conception* of God?" The answer to this is obviously No, since the two conceptions are different in several ways—for example, Muslims conceive of God as uni-personal, whereas most Christians conceive of God as tri-personal. But, of course, Christianity *itself* contains varying conceptions of God: there are different models of the Trinity, of divine sovereignty, of God's relationship to time, and so on.

The second way to interpret the question is, "When Christians and Muslims say the word 'God', are they referring to the same thing?" In other words, even though the *conceptions* are different, are the *referents* different? The answer to this is not obviously No, since it seems possible for two different conceptions to have the same referent. Suppose Jones and Ben are walking through a forest, and they see an ape in the distance. Jones points to it and says, "Look at that ape", but Ben points to it and says (mistakenly), "You mean that human?" Clearly, these two conceptions (ape and human), though contradictory in essential properties, have the same referent: the ape that they both see and are pointing at. Jones and Ben are *talking about the same ape*, even though Ben is mistaken about its properties. Could it be the same with different theists referring to God?

One way to approach this is to answer the question, "What is *required* for two different conceptions of God to have the same referent?" It seems that this question can be simplified to the question: "Assuming that God exists, what is required for *any* conception to refer to God?"

Christians might argue that in order to refer to God, a conception must include certain Christian doctrines, such as the Trinity, the incarnation, or the inspiration of the 66 books of the Bible. But these are clearly not required conditions, since Old Testament Jews did not believe in these things, and yet surely they believed in the same God that modern Christians do—it's not as if they were worshipping nothing!

One might argue that in order to refer to God, a conception must entail that God is the perfect foundation of reality.[1] Such a claim is difficult to assess. For example, the beliefs of hyper-Calvinists entail that God is imperfect, since God is not all-loving. Similarly, some theological finitists believe that God is not all-powerful. Are hyper-Calvinists and theological finists simply *mistaken* about God, or do they not even *believe* in God at all? Similarly, process theists might think that God and the universe are in a symbiotic relationship such that God is *not* the foundation of reality. Are process theists simply *mistaken* about God, or do they not even *believe* in God?

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[1] This definition is inspired by Joshua Rasmussen and Ryan Mullins.

God and Creation

1. The Problem of Imperfect Creation

1. The only perfect world is the one where God exists alone. (The "Alone World".)
2. God always chooses perfect worlds over imperfect worlds.
3. If (1) and (2) are true, and God exists, then the universe does not exist.
4. Therefore, God does not exist.

This argument might be persuasive at first glance. (1) might seem plausible: since God is the only perfect being, if God created *anything at all*, God would only be introducing imperfection into reality. (2) seems obvious: God, being perfect, must always choose the most valuable option; thus, God will always choose what is perfect over what is imperfect. (3) is obvious: given the first two premises, God (if God exists) would have opted not to create anything and instead exist alone, since that would result in a more valuable world than creating anything.

So—have we disproven God? No. The argument does not define 'perfect' as that word pertains to worlds. Consider four different such senses of 'perfect':

If 'perfect' means 'containing no evil or suffering', then (1) is false: God could create a universe with creatures but without evil or suffering—a "Heaven-from-the-Start" world. And (2) is undermotivated: it is not at all clear that God would always choose a world without evil or suffering over a world with evil and suffering. There might be certain goods that God desires but which require evil and suffering: bravery, sacrifice, compassion, perseverance, conflict resolution, and so on.

If 'perfect' means 'having every possible good thing', then (1) is false: as just mentioned, there are many good things that are unattainable in the Alone World.

If 'perfect' means 'being infinitely valuable', then (2) is true, but (1) is false: God could create a Heaven-from-the-Start world, which would surely be no less valuable than the Alone World. So if the Alone World is infinitely valuable, then so is a Heaven-from-the-Start world.

If 'perfect' means 'containing only omniscient, omnipotent, omnibenevolent beings', then (1) is true, but (2) is severely undermotivated. It merely begs the question by asserting that God would never create anything.

(Essay continues.)

2. The Array of Options

So the above argument is unpersuasive. But it raises the question: When God was deciding which world to actualize, what was the array of options like? Did God have finitely or infinitely many options? Were some options more valuable than others?[1] There are five scenarios regarding what the array of options was like:

- *Single World.* There was only one world available to God—namely, a world containing this particular universe. (And others, if there is a multiverse.)
- *Tie.* There were finitely or infinitely many worlds available to God, and they were all equally valuable.
- *Two-Way Hierarchy.* There were infinitely many worlds available to God, with no best or worst world. The feasible worlds just kept getting better in one direction, and kept getting worse in another direction. For every world God could have chosen, God could have chosen a better world and God could have chosen a worse world.
- *Decreasing Hierarchy.* There were infinitely many worlds available to God, with a best world but no worst world. There was one world that was better than all the others, and below that, all the other feasible worlds just kept getting worse and worse.
- *Increasing Hierarchy.* There were infinitely many worlds available to God, with a worst world but no best world. There was one world that was worse than all the others, and above that, all the other feasible worlds just kept getting better and better.[2]

Let's assess each scenario in turn.

3. The Single-World Scenario

In favor of the single-world scenario, one might argue that God was constrained to create this particular world because God loved *us*, the particular persons in this world. But this seems to assume that, before we even existed, God loved us, in a way that made God prefer us *over* all the other possible persons God could have created. This seems wrong. Even if it were possible to love a non-existent person, surely God would have loved all possible persons equally, and so would have been free to choose among multiple combinations of them.

Against the single-world scenario, one might argue that if there is only one option that God can choose, then God is not free. And if that one option was *necessarily* the only option God could choose, then that option is necessary, which means that there are no alternative worlds, which means that *creatures* have no alternative possibilities; whatever they do, they do necessarily. Therefore, *creatures* aren't free either. The single-world scenario destroys *all* freedom.

4. The Tie Scenario

In favor of the tie scenario, one might argue that every world is infinitely valuable and thus equally valuable. After all, God is infinitely valuable and exists in every possible world. Maybe God's mere existence "maxes out" the value of the world so that nothing God might create would affect it. This seems plausible, although it also seems plausible that, to avoid such a "wash", God saw fit to bracket God's own value and instead focused on the value of whatever God might create when deciding which option to take.

One might argue that if universal salvation was a feature of every feasible world, then the endless joy of all creatures "maxes out" the value of every world, even if God brackets God's own value.

Against the tie scenario, one might argue that it requires God to choose arbitrarily from among the options, but that since God is perfectly rational, God *cannot* make arbitrary choices.[3] But both claims seem wrong. First of all, surely God can choose something for a reason that is *sufficient for* but not *entailing of* God's choice, in which case God is not choosing arbitrarily.[4] Second of all, surely God *can* choose arbitrarily if God has a good reason for doing so. And the fact that there is no best option seems a perfectly good reason for making an arbitrary selection.[5]

5. The Two-Way Hierarchy Scenario

In favor of the two-way hierarchy scenario, one might argue that for any world, one can always conceive of a better world by adding some amount of happiness to it,[6] and one always conceive of a worse world by adding some amount of suffering to it. One might respond that in worlds involving *endless happiness* on the part of some persons, the value is already infinite and so adding extra happiness would not increase the overall value of the world, even if doing so increased the value of the world at the moment(s) that the happiness was added.

Below are four objections to the two-way hierarchy scenario.

5.1. Arbitrary Choice

One might object that the hierarchy scenario, similar to the tie scenario, requires God to make an arbitrary choice, which is impossible. But we've already seen that this argument is unpersuasive.

5.2. Surpassable Choice

One might object that the hierarchy scenario requires God's actions to be surpassable, since for any possible choice God could make, God or some other being *could* have made a better choice. Klaas Kraay claims that a perfect being's choices cannot be surpassable.[7] Some have converted this into an argument against theism called 'The Problem of No Best World':

5. If God exists, God could have created a universe better than this one.
6. If God could have created a universe better than this one,
   then God's choice to create this universe was surpassable.
7. God's choices cannot be surpassable.
8. Therefore, God does not exist.

But (7) seems wrong. Saying that God's choices cannot be surpassable puts a limit on God's power, since it entails that God is unable to choose when faced with an infinite hierarchy of options. Rob Koons argues that God's omnipotence *entails* an infinite hierarchy, since only a limited being would be able to do its "best", whereas an unlimited being such as God would have no such limit. According to Koons, when we ask why God allows some particular evil, some magnitude of evil, or some magnitude of divine hiddenness, there might be *no answer* beyond that God simply had to choose (perhaps arbitrarily) from an infinite hierarchy of options.[8]

5.3. Contradictory Hierarchies

One might object that some hierarchies are contradictory. Consider the set of all the integers and 0.5: (… -3, -2, -1, 0, 0.5, 1, 2, 3, …). The option that breaks the pattern is a partition point that divides the series into three sections: (… 0], [0.5], and [1, …). And since necessarily, God is morally perfect, God must choose from the best section [1, …), which means that the other two sections are not possible, even though we initially posited that they were. Contradiction. So it seems that any supposed hierarchy with a "deviation" in the pattern of value distribution is contradictory. Therefore, hierarchy proponents must deny that there are any such deviations.[9]

5.4. The Alone World

9. The Alone World is an option.
10. If the Alone World is an option, and the two-way hierarchy scenario is correct,
    then the Alone World partitions the hierarchy into three sections:
    (a) all the options worse than the Alone World,
    (b) the Alone World, and
    (c) all the options better than the Alone World.
11. If the Alone World partitions the hierarchy into the aforementioned three sections,
    then God (being perfect) must choose an option from the best section: (c).
12. If God must choose an option from (c), then the Alone World is not an option.
13. Therefore, the two-way hierarchy scenario is not correct.

6. The Decreasing Hierarchy Scenario

The decreasing hierarchy scenario is obviously false: Since God, being perfect, must choose optimally in every scenario, God must choose the best world. In that case, all the other worse options *aren't actually options*, since God can't choose them. So the decreasing hierarchy scenario is contradictory: it posits multiple options, but entails that there is only one option.

7. The Increasing Hierarchy Scenario

One might object to the increasing hierarchy scenario by saying that it involves a *worst* option among all the options that God could choose. But surely God couldn't choose the *worst* out of all the available options—that would be extremely lame, and unfitting for a morally perfect being. Imagine asking God why there is so much suffering in the world, and God answers, "I chose the absolute *worst* world that I could have chosen". Surely God is incapable of doing this. But that means that the worst option *isn't actually an option*, since God can't actually choose it. So, according to this objection, the increasing hierarchy scenario is contradictory: it posits that there is a worst option, but entails that that worst option is impossible.[10]

I was persuaded by this for years. But no longer. Suppose that the worst world is the Alone World. The Alone World is "perfect" in at least two of the four senses mentioned at the beginning: it contains no evil or suffering, and it contains only omniscient, omnipotent, omnibenevolent beings. So the Alone World is quite good. Anything God might create could only either *increase* the overall value of the world or leave it unchanged. (Obviously, God would never actualize a world that's *worse* overall than the Alone World.) This seems perfectly plausible. God is free not to create anything, because the Alone World is a perfectly fine option. And God is also free to create a whole bunch of different universes, since any world God might choose would be *at least as valuable overall* as the Alone World.

Moreover, perhaps there is *no* world that is the worst world other than the Alone World. Perhaps there are infinitely many worlds that just get worse and worse, converging toward the lower bound, which is the value of the Alone World. So there is, in a sense, a two-way hierarchy that sits entirely above the Alone World in terms of value.

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[1] Open theists would likely take God's options not to be complete possible worlds but instead to be sets of initial conditions, each evaluated on its expected value.

[2] In the hierarchies featuring endless increase in values, the values of the worlds could be increasing *divergently*—e.g., +100, +200, +300, etc.—or *convergently*—e.g., +100, +140, +160, +170, +175, etc. On the other hand, in the hierarchies featuring endless decrease in values, the values of the worlds *must* be decreasing convergently. If they increased divergently, then there would be some feasible worlds which would have negative values, which is impossible, since God, being perfect, could not choose a world that is *bad* overall.

[3] This argument is from Klaas Kraay, "The Axiology of Theism".

[4] Thanks to Jeremy Kidd for this point.

[5] In other words, "God always acts for a reason, unless God has a reason not to". From Tyron Goldschmidt and Samuel Lebens, mentioned in Ryan Mullins, "Ep. 66, Divine Rationality, THE Science, and Theology", *The Reluctant Theologian Podcast* (Podcast, 2021).

[6] This is adapted from a point by Philip Swenson.

[7] Kraay, in "Why Theists Should Believe in the Multiverse".

[8] Rob Koons, in Suan Sonna, "The Best Case for God's Existence - Robert C. Koons", *Intellectual Conservatism* (YouTube, 2020).

[9] Another reason one might think hierarchy scenarios are contradictory is due to a bizarre consequence of probability theory, which I discuss in the "Probabilities" section of "Arguments against Actual Infinites".

[10] Adapted from Klaas Kraay, in Parker Settecase, "The Axiology of Theism | w/Dr. Klaas Kraay - PPP ep.140", *Parker's Pensées* (YouTube, 2021).

God and Time

What is God's relationship to time? Is God temporal, experiencing time moment by moment, along with us? Or is God timeless and unchanging, completely outside of our timeline? In this essay, I examine three different types of models of God and time, along with arguments for each.

I Temporal Models of God

On *temporal* models of God, God is *everlasting* or *omnitemporal*, which means that God exists at every moment of time—God *always* exists. God exists in the present, past, and future, insofar as the present, past, and future exist. If only the present exists, then it is more precise to say that God exists (right now), God has always existed, and God will always continue to exist.

If God is temporal, then how long did God exist before creating anything? Was there a very first act of God's—which would be the first event in history—and if so, how long did God exist before that first act? There seem to be three types of answers:

- *Beginning*: God began to exist at the first moment of time, which had an initial boundary.
- *Non-Metric Initial Moment*: God existed at the first moment of time, which had no initial boundary and was thus indeterminately long. By committing God's first act, God ended the first moment and caused metric time to begin running.
- *Past-Eternal*: God has always existed throughout the eternal past.

The Beginning view seems implausible because it seems unlikely that something could just start existing in metric time without a cause. Indeed, theists often criticize atheists for this very reason, saying that it's implausible that the universe suddenly began to exist with no cause.

The Non-Metric Initial Moment views make it plausible for God to be uncaused, since on these views, God doesn't just start existing in metric time without a cause, but has a non-metric phase prior to the metric phase.

The Past-Eternal view faces some objections. First, it requires God to make an arbitrary choice, since there was an infinite duration of time before creation, and at any moment God could have decided to create, but no moment was better than any other, and so God's choice was arbitrary. But, one might response, what is the problem with God's making such an arbitrary choice? Surely there is nothing objectionable about God's making an arbitrary choice if God *had* to do so.

Second, since the probability of God's creating the universe within a given time unit is greater than zero, then at any moment, God has already experienced infinitely many time units, and so the probability of God's creating the universe at any moment is 1. But to say that the probability is 1 is just to say that God actually *did* create the universe. But that means that for *every* moment

of time before God created the universe, God created the universe. This is a contradiction. The only way the past-eternal theorist can escape is by accepting *eternal creation*, on which God has always been creating or influencing the universe, with no beginning.[1]

1. Divine Knowledge of Tensed Facts[2]

1. The collection of all facts is constantly changing.
2. The content of God's knowledge is identical with the collection of all facts.
3. If the content of God's knowledge is constantly changing, then God is temporal.
4. Therefore, God is temporal.

It seems there are only two ways to respond. One could reject (1) and instead hold to an eternalist view of time. (See "Time".) Or one could reject (2) and deny or redefine 'omniscience'.

2. Creation[3]

1. If God begins to create the universe, then God changes.
2. God begins to create the universe.
3. Therefore, God changes.

4. If God timelessly causes the universe to exist, then the universe timelessly exists.
5. The universe does not timelessly exist.
6. Therefore, God does not timelessly cause the universe to exist.

7. If God begins to be causally related to the universe, then God changes.
8. God begins to be causally related to the universe.
9. Therefore, God changes.

The timeless-God proponent will not accept (2), (4), or (8). They will say that God and the universe are in a timeless causal relationship; but whereas God is timeless, the universe is temporal. Ryan Mullins thinks such a view "might strike one as rather *ad hoc* and counterintuitive",[4] but it is not clear to me what the problem is.

3. Divine Choice

1. Every free choice involves two contradictory states: being undecided and being decided.
2. If (1), every free choice is temporal.
3. God makes at least one free choice.
4. Therefore, God's free choice is temporal.

(1) is obvious. If there is *only* the state of being decided, then there's no free choice—there's just an automatic process, such as a computer code. If there is *only* the state of being undecided, then a choice is never made.

(2) is obvious. Two things that are contradictory cannot both obtain timelessly. It cannot be timelessly true that God is decided *and* timelessly true that God is undecided. That would be a timeless contradiction. Therefore, *at least* one of those two states must be temporal.[5]

(3) is obvious. Surely we wouldn't want to take free will away from God.

4. Two Explanatory Steps

1. The universe began to exist, and the universe exists because of God.
2. If (1) is true, then reality involves two explanatory steps:
   (i) God exists and the universe does not exist, and (ii) God and the universe exist.
3. (i) and (ii) are contradictory and so at least one of them must be temporal.
4. If reality involves (i) and (ii), at least one of which is temporal,
   then God is in at least one temporal step, and so God is temporal.
5. Therefore, God is temporal.[6]

The timeless proponent need not accept the two steps in (2). Plus, (ii) mixes timeless entities with temporal entities, which seems illegitimate. The timeless proponent can solve both problems by changing (ii) to (ii*): "the universe exists". Or the timeless proponent can reject that the explanatory steps are states of affairs at all: The two steps could simply be the concrete objects themselves: God and the universe.

(3) seems correct. If two states are contradictory, they can't both obtain at the same time: it can't be the case that Bob both exists and does not exist at the same time. Neither can two contradictory states both obtain timelessly: it can't be the case that the number 7 both timelessly exists and timelessly does not exist. Therefore, the only two options are that the two contradictory states obtain at different temporal moments, or that one of them obtains timelessly and the other obtains at some temporal moment.

5. Temporal Relations

The timeless moment must be connected in *some* way to the temporal series of moments, since God *created* that temporal series. So there is an explanatory relation from the timeless moment to the temporal moments. But this seems to generate a problem. It seems that in a series of moments, explanatory relations connecting them are sufficient to be temporal relations. But we just admitted an explanatory relation between the timeless moment and the temporal moments. So why isn't that relation itself a *temporal* relation? If it is a temporal relation, then God is involved in a temporal relation, which means that God's initial moment is temporal.

The timeless theorist might respond in one of three ways. First, they might argue that God exists on a *different* timeline than ours, one that is "higher" than ours. But this view seems to have four problems: (1) It concedes that God exists within *some* timeline, and so God isn't really timeless after all. (2) It seems unnecessarily complicated. Why have two timelines instead of just one?

(3) Given how I've defined 'temporal', there is only one "level" of temporality: anything that persists within a linear series of moments is temporal, full stop. Maybe there are multiple independent timelines, but one isn't "higher" or more transcendent than the others. (4) The idea of God occupying a "higher" timeline just seems unnecessarily unclear and mysterious. How is this timeline related to ours? How fast do the two timelines run in relation to each other? Can God jump from one timeline to the other? What would that even mean? I don't see a good reason to adopt such a complicated view.

Second, the timeless theorist might deny that mere explanatory relations connecting moments are sufficient to be temporal relations—something else is involved *within* the temporal series that is absent from the relation *between* God and that series. This doesn't seem too promising, since I don't know what that additional element could be.

Third, the timeless theorist can adopt a four-dimensional view of spacetime. On this view, God exists timelessly by not being located anywhere within that block, even though God still *explains* the block by creating it. On this view, moments are not full descriptions of reality, but are rather three-dimensional temporal slices of spacetime (i.e., proper parts of spacetime, each of which has a length of zero along the temporal dimension but is maximally extended along all three spatial dimensions). This seems to be the only plausible option for the timeless theorist.

6. Three Responses by the Timeless God Proponent

1. Mystery. The timeless God proponent might say that we can't understand God's timelessness because it's a mystery. But why appeal to mystery *after* positing God's timelessness? How can they confidently assert that God is timeless, but then resist sharing any details about God's timelessness? If they truly want to appeal to mystery, then they should say that God's relationship to time is a mystery, and thus that we don't know whether God is timeless or temporal.

2. Perspective. The timeless God proponent might say, "God is temporal from *our* perspective, but God is timeless from *God's* perspective". Now, this seems a little off-topic. Surely the topic is not about how things are from a certain perspective. The topic is about *how things actually are*. Whose perspective is correct? If God's perspective is the correct one, then the timeless theorist is really just saying that God is timeless, but that we mistakenly *perceive* God as temporal. But notice that this does not address any of the arguments that God actually *is* temporal. Now, if the timeless theorist thinks that *neither* perspective is absolutely true, then I would ask if they want to talk about relativism before returning to the topic of God and time.

3. Entering into Time. The timeless God proponent might say that God is "by default" timeless, but chooses to enter into time and have dynamic relationships with humans. But if God enters into time—say, as a human—then God *learns* something: namely, what it's like to be a human. God acquires a new property of having this experience. But of course, acquiring new properties requires change, and only a temporal being changes. So it seems that if God enters into time, then God is permanently, irrevocably temporal; God cannot revert back to a timeless state.[7]

II TIMELESS MODELS OF GOD

On a *timeless* model of God, God exists *timelessly*. God never existed in the past, does not exist right now, and does not exist in the future. God exists only in a single, unchanging, timeless state. And so God does not change at all, in any sense. There is a single timeless moment that captures everything that God is and does.

1. Divine Change

One might argue that if God were temporal, then God would be able to change. But I don't see any problem with saying that God can change. Christians think that God became incarnate as a man, and walked around and talked with people, and died. That involves a lot of change. One might object that if God can change, then God can get better or worse. But this is mistaken. God's knowing the proposition ⟨It is Sunday⟩ on Sunday and then knowing the proposition ⟨It is Monday⟩ on Monday constitutes a change in God's knowledge, but that doesn't make God better or worse. It is precisely *because* God is perfect that God always knows what day it is![8]

One might object that if God changes, then God is dependent on other beings. But this seems wrong. Maybe God is *affected* by other beings, but that doesn't mean that God's very *existence* is dependent on other beings.

2. Divine Limits

One might argue that saying that God is temporal is essentially limiting God or putting God inside of a box. Isn't God supposed to be free of limits? Isn't God supposed to be beyond any box that we might try to pigeonhole God into? It seems to me that the answer to both questions is No. God surely has limits. God cannot sin. God cannot bring about a contradiction. God cannot force someone to make a free choice. God cannot break God's promises. All of these count as limits, unless we radically redefine the word *limit*.

Plus, I don't see how a temporal God is any more limited overall than a timeless God. If God is only timeless, then God cannot experience a dynamic relationship with anyone. That's certainly a limit. So I don't see how putting God inside of time is more limiting.

As for putting God inside of a "box", this just seems like a half-baked thought. What does the objector we mean by "box"? If they mean any sort of conceptual boundary, then I wonder whether they are a pantheist. As R. T. Mullins points out, theists who aren't pantheists hold that God is distinct from creation. The concept of God does not include my kitchen. That is a conceptual boundary to God. If there are no conceptual boundaries to God, then the word *God* doesn't refer to anything even *conceptually* distinct from anything else, and so all talk about God just reduces to talk about other things.[9]

3. Seeing the Whole Timeline

One might argue that God must be timeless so that God can look down and see the entire timeline of history "at once". One might argue that (1) God *must* be able to see the entire timeline, and that (2) God can see the entire timeline *only if* God is outside of it.

But both claims seem wrong. First, there might not *be* such a timeline; maybe the only things that exist are those that exist *right now*.[10] This would plausibly entail that the future is *indeterminate* and so there is nothing to know about it.[11] It is no detriment to God that God cannot see what is not there! Second, even if there is a timeline, the advocate of a temporal God can just say that God can look into the future or the past and see it with perfect clarity. Viewing the timeline from within doesn't seem inferior to viewing it from outside.

4. Foreknowledge and Freedom

The timeless God proponent might say that a timeless God solves the problem of divine foreknowledge and human freedom. If God is timeless, then God doesn't know our future actions "in advance"; rather, God simply knows them timelessly, and so there is no threat to our freedom.

This seems completely wrong. Suppose that God knows, thirteen billion years in advance, that I will eat cereal for breakfast tomorrow. When the time comes, am I free to choose between eating cereal and not eating cereal? There is no contradiction in saying that I am free to choose but that God simply knows in advance how I will freely choose. So it may be that the timeless God advocate is trying to avoid a problem that is not really a problem.[12]

But suppose that there *is* a problem—namely, that if God knows a future choice in advance, then that choice is not free. Now, how would it solve *anything* to say that God is timeless? If, as a rule, we cannot act in a way that would require God's *foreknowledge* to have been different than it actually was, then surely we cannot act in a way that would require God's *timeless* knowledge to be different than it actually is. If we have no power over the past, then surely we have no power over the *timeless* realm! Timeless knowledge seems *at least as* fixed as past foreknowledge, if not even more so.

5. Spacetime

One might argue that science proves that God would have to be outside of time. Time is just one dimension of the four-dimensional spacetime block. If God were temporal, then God would have to be part of the spacetime block. But God cannot be part of the spacetime block, since God is immaterial, and also God created the spacetime block.

I agree that a temporal God is incompatible with spacetime. But science does not prove the spacetime view. The existence of a four-dimensional spacetime is a theory that has enjoyed the majority opinion by scientists, but it is not universally accepted.

6. Creating Time

The timeless God advocate might say that God cannot be in time because time was *created* by God. Now, one would hope for a model of how this is supposed to work. At this point, I'll say three things. First, one motivation for saying that God created time is the belief that time is inherently a *physical* thing. But this isn't obvious. If time is a *metaphysical* thing that obtains whenever anything changes—even non-physical things such as God—then the motivation for saying that God created time is undercut.

Second, it seems that time, as I've defined it, isn't the sort of thing that can be created. Time is similar to existence, or logic, or truth, or explanation, or modality. It can't be created because it's the sort of thing that's just there *automatically*, at least in a universe where things persist or change. If something persists or changes, then we automatically have time—no one needs to create it. If God simply makes a new choice or thinks a new thought, then we have a succession of different stages, which means that we have time.

Third, even if the timeless theorist can come up with a reasonable model on which God creates time, then it seems that time would "take over" reality, and *everything*—including God—would enter into time and become temporal. The only exception to this would be if time is just one dimension of a four-dimensional spacetime block, and God exists outside of the block.

III Timeless-Temporal Models of God

On *timeless-temporal* models of God, God is both timeless and temporal. There seem to be at least three ways this might work:

- *The Part Model:* God has a timeless part and a temporal part.
- *The Mode Model:* God has a timeless mode of existence and a temporal mode of existence.
- *The Phase Model:* God has a timeless phase and a temporal phase.

The Part Model suffers because it makes God radically disunified, perhaps fundamentally so.

The Mode Model is unclear. What are "modes of existence"? If something exists, then it just *exists*. It might have different properties, but what would it mean to have different "modes"? Another problem is that since the two aspects are called 'modes' instead of 'phases', this view suggests that God's two modes are explanatorily simultaneous. But that is impossible. Let *A* be God's timeless mode. Let *B* be God's temporal mode in the year 1000 CE. Let *C* be God's temporal mode in the year 2000 CE. Now, *B* must be explanatorily prior to *C*. But then it cannot be right that *A* is explanatorily simultaneous with *both B* and *C*.

The Phase Model seems more promising. Obviously, it wouldn't entail that God's timeless phase is *temporally* prior to God's temporal phase, since something that is timeless doesn't stand in any

temporal relations. So the proponent of the Phase Model should instead say that God's timeless phase is *explanatorily* or *causally* prior to God's temporal phase. William Lane Craig fleshes out the Phase Model as follows:

God exists timelessly, causally prior to the first moment of time. By performing God's first act, God caused time to begin, and also caused God's self to become temporal. God's timeless phase is causally prior, but not temporally prior, to God's temporal phase. God has been temporal ever since the beginning of time.

1. The Phase Model versus Arguments for a Temporal God

Craig accepts the Divine Knowledge, Creation, Divine Choice, and Two Explanatory Steps arguments, since Craig agrees that God performed an action that entails that God is temporal. None of those four arguments rules out the thesis that God has a timeless phase causally prior to God's temporal phase.

The Temporal Relations argument does argue that God's initial phase was not timeless. And recall that the only plausible response the timeless theorist can give is to adopt four-dimensional spacetime. But since Craig believes God becomes temporal, Craig cannot adopt four-dimensional spacetime, since that would entail that God becomes part of spacetime as soon as God creates it. (Craig takes a presentist view of time.)

So how would Craig respond to the Temporal Relations argument? Craig says that exists if and only if change has occurred.[13] At the first moment, no change has yet occurred. Therefore, at the first moment, there is no time; the first moment is timeless. And so since God exists at the first moment, *God* is timeless at the first moment. But of course, as soon as God changes—by acting or thinking a new thought—that constitutes a new moment and thereby a change, and so time begins. And if presentism is true, there can be no backward causation or explanation, and so nothing later on can retroactively change the initial moment from timeless to temporal.

But Craig's view entails that the first moment of *any* conceivable timeline is timeless, even if the first moment is just some physical state.[14] If the first moment of a timeline is the first moment of the big bang, then the first moment of the big bang is *timeless*, since no change has yet occurred. But this is implausible. Surely the mere fact that nothing happened before some state S does not imply that S is *timeless*!

2. The Phase Model versus Arguments for a Timeless God

Craig's model is susceptible to all the arguments for a timeless God—Divine Change, Divine Limits, Seeing the Whole Timeline, Foreknowledge and Freedom, Spacetime, and Creating Time—because these arguments conclude that God does not have a temporal phase. However, we saw that the first four of those arguments were not persuasive. The last two arguments—Spacetime

and Creating Time—were plausible in ruling out a temporal phase only if one accepts four-dimensional spacetime, which Craig does not.

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[1] Thomas Jay Oord is a proponent of such a view. Such a view appears to remove God's free will to *start creating*, since there was never a moment *before which* God had started creating and could decide whether to start creating.

[2] William Lane Craig, *Time and Eternity* (Wheaton: Crossway, 2001). I have adapted the formulation.

[3] Ryan Mullins, "The Divine Timemaker", *Philosophia Cristi* 22.2 (2020): 219-222. I have changed the wording of the second argument. I converted it from *modus ponens* to *modus tollens* and replaced Mullins' word *eternally* with *timelessly*, since I found the word *eternally* to be obscure.

[4] Ibid., 221.

[5] This point is inspired by Alan Rhoda's argument for the open future. See Bandy, "The Open Future".

[6] This argument is inspired by comments from Ryan Mullins in several places, including Mullins, "Ep. 137 Divine Simplicity, Creation Ex Nihilo, and Spanish Providence", *The Reluctant Theologian* (Podcast, 2023).

[7] Thanks to Josiah Bogue for discussion on the topic of this essay.

[8] I owe this response to William Lane Craig.

[9] R. T. Mullins, "Ep. 134 Clearly Reformed or Clearly Confused: The Problem of Divine Infinity", *The Reluctant Theologian Podcast* (Podcast, 2023).

[10] See Bandy, "Time".

[11] See Bandy, "The Open Future".

[12] For further discussion, see Bandy, "Divine Sovereignty and Human Freedom".

[13] William Lane Craig, "Omnitemporality", in *God and Time: Four Views* (2001), 153.

[14] Mullins, "The Divine Timemaker", 226. This point also seems detrimental to the second premise in Craig's *kalām* cosmological argument: "The universe began to exist". Craig thinks that any entity with a timeless moment does not begin to exist. But given Craig's view of time, the atheist can simply say that the first moment of the universe is a timeless moment, and so the universe did not begin to exist, thereby rejecting the second premise of the *kalām*.

God and Morality

1. Is God the Sole Source of Morality?[1]

Many theists say that God is the sole source of morality—i.e., that God is the single ultimate explanation of why certain things are good or evil, right or wrong. In this section of this essay, I argue that God is not the sole source of morality. To begin, consider the following dialogue:

> Atheist: "Why is torturing wrong?"
> Theist: "Because God commands us not to torture."
> Atheist: "Why does God command us not to torture?"
> Theist: "Because torture goes against the character of God."
> Atheist: "Why does torture go against the character of God?"

At this point, there seem to be five answers the theist could give. The theist could appeal to (i) a brute fact, (ii) the value of persons, (iii) the idea that God is the definition of goodness, (iv) God's perfection, or (v) intrinsic features of torture. Let's examine each of these answers.

1.1. Brute Fact

The theist might say, "It's a brute fact that torture goes against the character of God. That's just how it is". But this is problematic, for two reasons. First, this response says that there's nothing intrinsic to torture that explains why God is opposed to torture. God opposes torture, but not because it causes pain—God opposes torture for no reason at all. This is clearly wrong.

Second, this response removes any advantage theism might have over atheism regarding the source of morality. Some theists argue that atheists have no foundation for morality. But on this first theistic answer, it's just a brute fact that God is opposed to torture. The atheist can say that it's just a brute fact that torture is wrong. The theist might claim that it's more plausible to have God in the picture. But why think that? The atheist can say that morality is grounded in the range of human experiences, intentions, and behaviors, without need for God.[2]

1.2. The Value of Persons

The theist might instead say, "Torture goes against the character of God because torture causes unnecessary suffering to persons of moral value, and persons have value because God created them and imbued them with value".[3] This answer suggests a model of how God grounds morality: God is the morally perfect foundation of reality, and therefore God is the most ultimate of all beings that have value. Anything else that exists has value only because it is created by God and imbued by God with value.

But this response has two problems: First, it doesn't explain why it's wrong to cause unnecessary suffering to persons of moral value. Why is it wrong to hurt valuable creatures? Why isn't it permissible, or even obligatory, to hurt them?

Second, the atheist can say that humans have *intrinsic* value, not because of who made them or where they came from, but because of what they are: thinking and feeling agents. Such an atheist will think that it's irrelevant that we came from collections of mindless atoms. We are thinking and feeling agents, and that's sufficient for us to have moral value.

1.3. The Definition of Goodness

The theist might instead say, "God is the *definition* or *reference point* of goodness (or love, or justice, etc.)".[4] But this is ambiguous. It could be interpreted in at least six different ways. Below, I provide each interpretation in quotes, followed by my response.

1. "God is perfectly good, and God's character perfectly informs us about what is good and evil." This seems right. But the fact that God is perfectly good does not imply that God *defines* goodness itself. A calculator can do math perfectly well, and inform us about what perfect math is, without *defining* what perfect math is.

2. "God is goodness itself." This seems wrong. Goodness is a property. God is a person. Properties are not persons. The response also does not explain anything. Why does torture go against goodness itself?

3. "God decides what the definition of goodness is." This is mistaken. Goodness is a property. The only things that have definitions are linguistic items, such as words and phrases. Therefore, goodness doesn't have a definition.

4. "God decides what the definition of the word 'goodness' is." This seems pointless. Definitions are purely pragmatic. Defining a word a certain way has no bearing on metaphysics. And at any rate, it seems that the word 'goodness' should not have a definition; it should be a primitive term.

5. "God decides what is good and what is evil." This seems wrong. Surely God *couldn't* have made a world where loving others is always evil, or where it is good to torture children for fun. Surely, if morality exists, then at least some things *must* be good, and there isn't anything God can do about it.

6. "God is the definition of goodness. God is good by definition." This is mistaken. A definition is a linguistic item, such as a word or a phrase. God is not a linguistic item. Therefore, God cannot be the definition of goodness. Similarly, if 'goodness' just means 'the properties of God's nature', then the sentence 'God is good' just means 'God has the properties of God's nature', which is trivial and uninformative. But surely that is not what the sentence 'God is good' means. And so it seems wrong to define 'goodness' as 'the properties of God's nature'.

1.4. God's Perfection

The theist might instead say, "Torture goes against the character of God because God is perfect". But this does not explain anything. Why does torture go against perfection?

1.5. Intrinsic Features of Torture

The theist might instead say, "Torture goes against the character of God because it intentionally causes unnecessary suffering". (Or, in general, any answer that appeals to something intrinsic to torture.) This seems right. But notice that this answer says that it's not *really* God who is the ultimate source of the wrongness of torture; the ultimate source is the intrinsic features of torture. God is an unnecessary middle-man in the chain of explanation. The atheist can cut out the middle-man and simply say that torture is wrong because it causes unnecessary suffering. No need for God.

We can summarize the foregoing into an argument:[5]

1. There is an explanation for the fact that God opposes torture.
2. If there is an explanation for the fact that God opposes torture,
   then that explanation is at least partially external to God,
   and so God is not the sole source of all moral facts.
3. Therefore, God is not the sole source of all moral facts.

2. God's Relationship to Moral Facts

This prompts us to think more generally about God's relationship to moral facts. Let *the Ps* be all the true basic moral propositions that are not about God, nor about all moral facts as a whole. So the Ps include propositions such as "torturing people for fun is wrong", "loving others is good", "languishing is bad", and so on. Now consider the following three propositions:

1. The Ps are true.
2. God is perfectly good.
3. God and the Ps are perfectly aligned.

Any two of these propositions jointly entail the remaining one. But what are the explanatory relations among them?

One might say that (2) and (3) jointly explain (1): God is perfectly good and opposes things such as torture and rape, and this explains why torture and rape are wrong. But as I argued above, this is implausible. Why does God oppose things such as torture and rape? This view doesn't explain that at all. One might add that (2) explains (3): God opposes torture and rape because God is perfectly good. But this does not explain anything. Why would a perfectly good God oppose things such as torture and rape?

One might say that (1) and (3) jointly explain (2): Torture and rape are intrinsically wrong, and God opposes them, and this explains why God is perfectly good. But this view also doesn't explain why God opposes torture and rape. It also has the unsettling implication that God is good only because God successfully meets the moral standard, rather than being intrinsically good.

One might say that (2) and (3) jointly explain (1): Torture and rape are intrinsically wrong, and God is intrinsically perfectly good, and this explains why God opposes torture and rape. This view is the only one that is consistent with the three relevant intuitions: that torture and rape are wrong because of their intrinsic features, that God does not achieve perfect goodness by conforming to a moral standard, and that there needs to be an explanation for why God opposes torture and rape. Therefore, this seems to be the best of the three views.

3. God and Moral Obligations

What about moral *obligations* in particular—facts about what persons *should* or *should not* do? Why is it true that "I should not torture someone for fun"? *Divine command theory*, defended most prominently by Robert Adams,[6] holds that moral obligations are grounded in or identical with God's commands.

This raises the question: why should we obey God's commands? We probably shouldn't say, "For no reason". Another answer is that one of God's commands is "Obey all of My commands". Frederick Choo has asserted that this is viciously circular,[7] and William Lane Craig has asserted that it is benignly circular,[8] but I personally do not see the circularity—I cannot spot any explanatory loop that results from this. The command "Obey all of My commands" is obviously self-referential, and maybe that is what Craig means by benign circularity. A third answer is that God simply has the power to *create* obligations whenever God issues a command.[9]

4. The Practical Value of Divine Goodness

Some theists take comfort in the idea that God is good. But this is justified *only if* God's goodness *implies something positive for our well-being*. After all, some theists think that God punishes people for other people's sins, or drowns infants with a flood, or sends armies to kill women and children, or decides that certain people will never have a chance to be in a relationship with God, but are instead doomed to eternal torture. Unless we clarify what God's goodness implies for us, the phrase "God is good" is empty at best and deceiving at worst.

It seems to me that it should imply that God loves us—i.e., that God wants us to achieve maximal flourishing and fulfillment, and wants to be in a relationship with us.

In a similar vein, many theists try to use the existence of morality (or moral intuitions) as evidence for the existence of God. This type of argument, as far as I can tell, invariably appeals to our intuitions that some things are right and some things are wrong. But for many people, this argument backfires when specific religious doctrines are brought in, such as unconditional

election, or conservative Christian sexual ethics—e.g., the idea that homosexual behavior is morally corrupt. Many people have moral intuitions that these religious doctrines are false, and so the same type of argument that may lead them toward theism will also probably lead them away from those religious doctrines.

So we should not worship God "just because he is God", if that means we are ignoring specific aspects of God's character. We should worship God because God is perfectly good, perfectly powerful, perfectly knowledgeable, and so on. (This is different from the reason why we should *love* God—we should love God for the same reason we should love anyone else: because love for others is a morally good act.)

Similarly, it seems wrong to say that the ultimate reason we should love others is that God (or Jesus) loves others. That seems to get things backwards. God (or Jesus) loves others because it is good to love others! They do not define goodness. They simply give us a perfect example of it, for us to imitate.

5. Mercy and Justice

A theist might divide God's goodness into two components: mercy and justice. Some non-theists define *mercy* as "suspension of justice", and so—surprise!—conclude that God's goodness is contradictory.[10] Of course, the theist doesn't have to do this. The theist can simply define the terms differently. God's justice, for example, could simply mean that God will eventually right every wrong; or that no sin will go unpunished. God's mercy could simply mean that God sometimes spares guilty or corrupt people from being punished. Given the possibility of vicarious liability, the idea that no *sin* will go unpunished does not entail that every *sinner* will go unpunished.[11]

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[1] Thanks to Jeremy Koons and Joe Schmid for the inspiration to write this section. Thanks to Travis Pelletier and Steven Alexander for prompting me to give up a worse version of this argument which I previously defended.

[2] I am here characterizing the debate as being between a theist and an atheist, but this is for simplicity's sake. The debate is really between someone who thinks that God is a plausible ground of morality and someone who does not think that.

[3] This answer is inspired by my father, Dr. Timothy Bandy.

[4] See e.g. William Lane Craig, "The Moral Argument", *drcraigvideos* (YouTube, 2015).

[5] This version of the Euthyphro Dilemma is inspired and adapted from Emerson Green, "CA105 Responding to Trent Horn's '5 Atheist Double Standards'", *Counter Apologetics* (Podcast, 2022).

[6] Robert Adams, *Finite and Infinite Goods: A Framework for Ethics* (Oxford University Press, 1999).

[7] F. Choo, "The Prior Obligations Objection to Theological Stateism", *Faith and Philosophy* 36.3 (2019): 372-384.

[8] William Lane Craig, in Reasonable Faith, "William Lane Craig v Erik Wielenberg | "God & Morality" | NC State - Feb 2018", *ReasonableFaithOrg* (YouTube, 2018).

[9] Choo, "The Prior Obligations Objection".

[10] Stephen Woodford, against Justin Brierley in "Is it rational to be a Christian? Justin Brierley debates Rationality Rules at Oxford University", *Premier Unbelievable?* (YouTube, 2019).

[11] See Bandy, "The Atonement".

GOD AND HUMANS

Religions

1. Revelation and Experience

If God exists, then God has apparently revealed God's self to humans in many ways, often through whatever religious tradition they practice. There appear to be thoughtful, honest, and profound accounts of divine revelation or mysticism across multiple religions—Christianity, Judaism, Islam, Hinduism, Sihkism, and so on.[1] Often a divine revelation appears to prompt someone to convert from one religion to another.[2] And sometimes there seem to be inauthentic revelations, where people individually or collectively conjure up an experience or expectation—think of religious cults such as Heaven's Gate.[3]

So it seems that at least sometimes, a *religion* is a human response to what is perceived as transcendent.[4] These transcendent revelations are sometimes not very specific—perhaps it is a sense of union with God, or a sense of awe at the universe. Based on those experiences, humans add specific beliefs and practices to cultivate those experiences. Perhaps humans also write histories and myths of God's revelation—such as the Hebrew Bible—or dialogues about cultivating union with the ultimate—such as the Upanishads. Or—more commonly nowadays—when a religious believer has such an experience, they interpret it through the lens of their own religion. So when a Christian experiences union with God, or an answer to prayer, or extreme generosity from a fellow believer, they might interpret it as confirmation for Christianity; whereas an identical experience for a Muslim might serve as confirmation for Islam.

Of course, since humans are fallible, the resulting beliefs might not all be correct, unless God acts to ensure that they are correct. And so perhaps every religion is a mixed bag of facts and falsehoods. It seems to me that the method of finding out which beliefs are true is no different from the method outlined in "Theories": find the set of beliefs with the best tradeoff between internal and external virtues.

2. Soteriology

A major topic within some religions is *soteriology* (or *personal eschatology* or *the destiny of persons*), about which there are six broad questions:[5]

(1) What does salvation or liberation consist in?

- *Hedonism:* Salvation consists in receiving maximal pleasure.
- *Union:* Salvation consists in union with God, the good, or ultimate reality.
- *Identification:* Salvation consists in becoming (or realizing one is already) identical with God, the good, or ultimate reality.
- *Nirvana:* Salvation consists in the dissolution of the self and all desires.

(2) Who attains salvation or liberation from the suffering of this life?

- *Nihilism*: No one attains salvation.
- *Particularism*: Some persons attain salvation, and other persons do not.
- *Universalism*: Every person eventually attains salvation.

(3) How does a person attain salvation?

- *Exclusivism*: Only one religion provides the pathway to salvation, and a person must consciously follow that religion in order to be saved.
- *Inclusivism*: Only one religion provides the pathway to salvation, but persons can be saved through that religion without consciously following it.
- *Pluralism*: Multiple religions provide pathways to salvation.

(4) Is there a cutoff point after which people's destiny is irreversibly fixed?

- *Universal Cutoff*: There is a global point in time at which everyone who has already attained salvation retains it eternally, and everyone who has not already attained salvation never attains it. This could be *externally determined*—for example, God intervenes at some point and seals everyone's fate. Or it could be *internally determined*—for example, each person decides when to seal their fate, but since there are only finitely many persons, there will come a time at which everyone has made such a decision.
- *Personal Cutoff*: New persons keep coming into existence endlessly into the future, so that there is no universal cutoff point. However, each person has a *personal* cutoff point, after which their destiny is sealed (they are either permanently saved or permanently non-saved).
- *No Cutoff*: Not every person has a personal cutoff point; some or all persons endlessly drift back and forth between salvation and non-salvation.

(5) When do persons have the opportunity to attain salvation?

- *Hard Premortem*: After you physically die, you do not get any opportunities to attain salvation. This is true even if you did not get any opportunities before death.
- *Soft Premortem*: After you physically die, you do not get any opportunities to attain salvation, unless you died young enough or were sufficiently mentally disabled, in which case you attain salvation automatically.
- *One Chance*: You get at least one, but not infinite, opportunities to attain salvation. If you get at least one opportunity during this life but fail to attain salvation, then you do not get any more opportunities. If you do not get an opportunity during this life, then you'll get exactly one opportunity after death. If you fail at that opportunity, then you do not get any more opportunities.
- *One Post-Mortem Chance*: You get exactly one opportunity after death, regardless of whether you got an opportunity during this life.
- *Unlimited Opportunities*: You will never run out of opportunities to attain salvation.

(6) What is the fate of persons who do not attain salvation?

- *Eternal Conscious Torment*: Persons who do not attain salvation are doomed to an endless state of torment and sadness.
- *Annihilationism*: Persons who do not attain salvation eventually cease to exist, either by being destroyed by God, or by shutting themselves off from God, the source of life.
- *Reincarnation*: Persons who do not attain salvation are reborn into another life.
- *Decent Life*: Persons who do not attain salvation are partially restored so that they live a decent but not amazing life.[6]
- *Animalism*: Persons who do not attain salvation are degraded to an animal level (such as monkies).

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[1] See the Muslim philosopher Al-Ghazali, *The Faith and Practice of Al-Ghazali*, tr. W. Montgomery Watt (Oneworld Academic, 2020). For Al-Ghazali, "the certainty he was seeking 'did not come about by systematic demonstration or marshaled argument, but by a light which God most high cast into my breast'".

[2] Nabeel Qureshi, *Seeking Allah, Finding Jesus: A Devout Muslim Encounters Christianity*, 3rd ed. (Zondervan, 2018).

[3] See also all the failed apocalyptic religious groups discussed in Dale Allison, *Jesus of Nazareth: Millenarian Prophet* (Fortress Press, 1998).

[4] This phraseology is adapted from John Hick.

[5] The first two questions and their answers (except for nihilism) I've adapted from Joshua Rasmussen, in Joseph Schmid, "Universalism and Eternal Hell | Dr. Josh Rasmussen & Dr. Eric Reitan", *Majesty of Reason* (YouTube, 2022).

[6] For discussion of this and the next view, see Emerson Green et. al, "CA103 Defeat, Evil, & Hell – w/ Christian Idealism & Invoking Theism", *Counter Apologetics* (Podcast, 2022).

Divine Foreknowledge and Human Freedom

If God knows the future, how are we able to do anything other than what we actually do? Suppose God knew 1000 years ago that I will eat breakfast tomorrow. Am I able to skip breakfast? Suppose that I skip breakfast. In that case, God thought that I would eat breakfast, but in fact I *didn't* eat breakfast. And so God's foreknowledge was mistaken all along! But that's impossible. God's foreknowledge is infallible and can never be mistaken.

On the other hand, suppose that if I skipped breakfast, this would somehow *change* what God believed all along, so that God *actually* believed that I would skip breakfast. But this is also impossible; it's impossible to change the past.

But now it looks like we're in trouble: If I can skip breakfast, then either I can change the past, or I can make God's foreknowledge mistaken. But I cannot do either of those things. Therefore, I cannot skip breakfast. And what goes for my skipping breakfast goes for *all* the future choices of *everyone*. And so it seems that divine foreknowledge is incompatible with freedom to do otherwise.[1] Thus a trilemma for theists:

1. God knows that I will eat breakfast.
2. I can skip breakfast.
3. If God knows that I will eat breakfast, then I cannot skip breakfast.
   (Since doing so would either change the past or cause God to have been mistaken.)

Open theism rejects (1), stating that God does not know the outcomes of future free choices. For every future free choice, God does not know how exactly it will be made.

Theological determinism rejects (2), stating that I cannot skip breakfast. God has determined every event, including every human choice, and so humans are never free to do otherwise.

Control-over-the-past (COP) views reject (3). On COP views, we cannot *change* the past or make God's foreknowledge mistaken, but we do have *control* over certain parts of the past. On such views, it is true that I *will* eat breakfast. But I *can* skip breakfast, and if I *were* to skip breakfast, then God *would have* foreknown all along that I would skip breakfast.[2] COP views, therefore, reject the idea that the past is *fixed*—that there is nothing we can do about things that have already happened. On COP views, at least some parts of the past are still under our control. Below, I describe four COP views that detail *how* we have control over the past.

1. Ockhamism states that there are two types of facts about the past. A *hard fact* is only about the past: for example, World War II ended in 1945. We have no control over hard facts; hard facts are *fixed*. There is nothing we can do that would make it so that World War II didn't end in 1945. But a *soft fact* is partially about the past and partially about the present or future: for example, World War II ended 79 years before I finish this essay. Assuming that this fact is true, I *do* have control over it, since I can wait an extra year to finish this essay. If I were to do so, then World War II

would have ended 80, not 79, years before I finish this essay. Since soft facts are partially about the present or future, we have control over them. God's foreknowledge of future free choices are soft facts, and therefore we have control over them.

2. Dependence views state that we have control over any facts that *depend* on our free choices. God's foreknowledge of our future free choices depends on those choices, and therefore we have control over God's foreknowledge. Consider God's knowledge of what is happening right now. Suppose I am raising my hand. God knows that I am raising my hand, because God *observes* that I am raising my hand. In this way, God's knowledge of my choice *depends* on my choice; ⟨God knows that I raise my hand⟩ *because* ⟨I raise my hand⟩. And surely God's knowledge of that choice doesn't imply that my choice is not free.[3] Similarly, consider God's knowledge that I will eat breakfast tomorrow. God knows that I will eat breakfast tomorrow, because God *observes* that I will eat breakfast tomorrow. God's knowledge of my choice depends on my choice; ⟨God knows that I will eat breakfast tomorrow⟩ *because* ⟨I will eat breakfast tomorrow⟩. And God's knowledge of that choice doesn't imply that I cannot skip breakfast tomorrow. In this way, I have control over God's foreknowledge.

Unlike Ockhamism, the dependence view allows us to have control over some hard facts about the past. Consider this situation: God foreknew that I would never mow my lawn, and because of that, God allowed an ant colony to move into my lawn a few years back. Suppose that it is crucial to God's plan that the ant colony survives. Now, the fact that the ant colony was in my lawn is a hard fact about the past. And I will never mow my lawn. But I still *can* mow my lawn, and if I were to do so, then God would not have allowed the ant colony to move into my lawn.[4] And so I have control over whether the ant colony moved into my lawn. I have control over that fact because that fact depends on my choice to mow my lawn.[5]

On dependence views, God cannot just reveal God's foreknowledge to people willy-nilly. Doing so may lead to an explanatory loop.[6] Suppose that (a) God foreknows what someone will do, (b) God tells them what they will do (based on God's foreknowledge of what they will do), (c) they do it *because* God told them, and (d) God foreknows that they will do it *because* they do it. This is an explanatory loop.

3. Non-dependence views state that facts about the future are just *true*, without any entailing explanations. So even if the future doesn't exist, it is just true that we *will* make certain choices, even though we *could* choose differently. And God knows those facts.

4. Molinism does not seem to have a default doctrine about *how* we have control over the past. But it seems the Molinist will want to say that we have control over facts in the past if those facts describe a divine choice that is *based on* knowledge about counterfactuals about our free choices, *or* if those facts describe something that *depends on* a divine choice that is based on knowledge about counterfactuals about our free choices.

Recall the ant colony case. Define 'L' as the counterfactual 'If I were to live in House H, I would never mow my lawn'. On Molinism, before creating the universe, God knew L. Based on God's knowledge of L, God placed me in House H and allowed the ant colony to move into my lawn. Now, I will not mow my lawn. But I still *can* mow my lawn, and if I were to do so, then God would not have known L, and God would not have allowed the ant colony to move into my lawn. So I have control over whether the ant colony moved into my lawn, even though that fact does not depend on my choice. I have control over that fact because that fact depends on a divine choice that was based on God's knowledge of L. And I also have control over whether L is true.

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[1] This is a highly condensed version of the influential argument by Nelson Pike in "Divine Omniscience and Voluntary Action", *The Philosophical Review* 74.1 (1965): 27-46. Other influential writers on this problem include John Martin Fischer, Linda Zagzebski, and William Hasker.

[2] William Lane Craig, *The Only Wise God* (Wipf and Stock, 2000).

[3] This example is from Trenton Merricks.

[4] This type of sentence ('If X were to happen at time T_1, then Y would have happened at an earlier time T_0') is a *backtracking counterfactual*.

[5] The dependence, of course, is indirect: whether the ant colony moved into my lawn depends on God's choice to let them do so, which depends on God's foreknowledge of my choice to mow, which depends on my choice to mow. The ant colony example is from Alvin Plantinga. I heard the explanation of it from Philip Swenson.

[6] See Bandy, "Circularity".

Divine Sovereignty and Human Freedom

God's *sovereignty* is God's level of control over the universe. God's *providence* is the manner in which God brings about God's purposes. If God is sovereign, how do we have free will?

1. Open Theism

Open theism states that God does not have exhaustive knowledge of the future.[1] *Open future open theism* states that there are no positive facts about future free choices, and so it is no strike against God's omniscience that God doesn't know future free choices, since there is nothing to know about them. *Limited foreknowledge open theism* states that there are positive facts about future free choices, but that they are impossible for God (or for anyone) to know. *Voluntary open theism* states that God could know the future, but has decided not to know it, for various reasons.

On open theism, God is sovereign over the universe in the sense that God is the ultimate king and ruler of the universe, even if God isn't certain about everything that's going to happen. God can significantly influence how things play out, perhaps by working miracles,[2] speaking to people, or setting conditions that result in significant effects. In addition, if God knows all the *possibilities* of what might happen, surely God can have a *plan* for what to do in any situation that might come up, and so God would always be completely prepared for whatever might happen.[3] And so it does not seem to be a huge detriment to God that God does not exhaustively know the future. Open theists generally affirm that humans are free to do otherwise.

2. Theological Determinism

Theological determinism states that God has determined everything that happens in the universe, including human choices. Therefore, humans are never free to choose between multiple options. If there *are* multiple ways that things could go, those possibilities are only available to *God*—it is never up to us how things play out. Everything that happens is entirely up to God. Theological determinism gives God *meticulous providence*—total control over every detail of what happens.[4]

3. Simple Foreknowledge

Simple foreknowledge states that God has exhaustive knowledge of the future (or at least constant access such knowledge), but we are free to choose between multiple options. How does God know the future? *Dependence views* state that God can look into the future and see what we will freely do, and so God's knowledge *depends* on our future free choices. This view requires the future to exist, since there needs to be a future for God to look into.

On simple foreknowledge, God has all the benefits of open theism, plus access to knowledge of the future, but God does not have the meticulous providence provided by theological determinism or Molinism. But having knowledge of the future can be providentially useful. For

example, if God looks ahead and sees that a group of terrorists will attack a certain city, God can act in ways that will make the people in that city aware of the impending attack.[5]

4. Molinism

Molinism states that, prior to creating the world, God possessed *natural knowledge*, which is knowledge of all possibilities. God's natural knowledge included knowledge of all the ways that possible creatures *could* act in any circumstance in which God might place them. For example, God knew that if a certain possible creature, Billy, were at Walmart in 2001, Billy *could* buy a trampoline and also *could* refrain from buying a trampoline. Such facts about all the various possibilities are *necessary* facts, and so God *necessarily* knew all of them.

God also possessed *middle knowledge*: knowledge of how each possible creature *would* act in any circumstance in which God might place them. For example, God knew that if Billy were at Walmart in 2001, Billy *would* buy a trampoline. Although Billy *could* refrain from buying a trampoline in that exact circumstance, he *would* in fact freely choose to buy a trampoline in that circumstance. This type of fact is a *subjunctive conditional*: ⟨If X were the case, then Y would be the case⟩. A subjunctive conditional about what a creature would freely do in a given circumstance is a *counterfactual of creaturely freedom* (CCF): ⟨If P were in C, P would do A⟩.

Of course, if creatures have freedom, then CCFs are only *contingently* true. It *could* have been the case that if Billy were at Walmart in 2001, Billy would refrain from buying a trampoline. But it is contingently the case that if Billy were at Walmart in 2001, Billy would buy a trampoline. And so God only *contingently* knows these CCFs. It is necessary that God *have* middle knowledge, but the *content* of that middle knowledge is contingent.

The cost of CCFs is that they *limit* God's power over what type of universe God can create. God can't just create any type of universe God wants. Since it is true that if Billy were at Walmart in 2001, Billy would buy a trampoline, God cannot create a universe in which Billy is at Walmart in 2001 and freely refrains from buying a trampoline. And so not everything that is *possible* is *feasible for God*.

The benefit of CCFs is that they allow God to have *meticulous providence* without determining everything. Let a *decree* be a decision of God's regarding (1) what initial conditions to set for the universe, and (2) how and when to intervene in the universe. For any decree God might consider, God knows which creatures will end up in which circumstances, how they would act, and how their actions would affect the universe. Therefore, for any decree God considers, God knows the full, detailed story of how everything would play out, and yet creatures are still free to choose between multiple options.[6]

Once God chooses a certain decree, God creates the universe, and the story begins. Right from the beginning, God has full foreknowledge of the future, similar to the simple foreknowledge view. This is God's *free knowledge* of the world. But *unlike* the simple foreknowledge view, God

doesn't know the future by "looking ahead" and seeing what will happen. On Molinism, God knows the future by *inference* from God's middle knowledge and God's decree. For example, if God's decree includes placing Billy in Walmart in 2001, then God knows that Billy *will* buy a trampoline, since that is entailed by both the CCF ⟨If Billy were at Walmart in 2001, Billy would buy a trampoline⟩ and the indicative fact ⟨Billy is at Walmart in 2001⟩.

Now, Billy *could* decide to refrain from buying a trampoline. If Billy *were* to refrain from buying a trampoline, God's middle knowledge *would have* been different. God would have instead known the CCF ⟨If Billy were at Walmart in 2001, Billy would refrain from buying a trampoline⟩. And God's foreknowledge also would have been different. God would have known the fact ⟨Billy will be at Walmart in 2001 and will refrain from buying a trampoline⟩.[7]

This is not to say that CCFs *depend* on our choices. That is incorrect on most versions of Molinism. For one thing, all CCFs were true at a moment prior to God's decision to create the universe, and so none of our choices existed in any sense, and so there were no actual choices for the CCFs to depend on. Moreover, there are many true CCFs about possible creatures that will never exist because God has decided not to create them. Those CCFs obviously cannot depend on the choices of those creatures, because those creatures do not exist and will never exist.

Nevertheless, on Molinism, CCFs about our choices bear *necessary connections* to our choices. For example: Necessarily, if Billy is at Walmart in 2001 and buys a trampoline, then the following CCF is true: ⟨If Billy were in Walmart in 2001, Billy would buy a trampoline⟩. This necessary connection is not causal or explanatory in any way.

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[1] Open theists do not necessarily claim that divine foreknowledge and creaturely freedom are incompatible.

[2] God could accomplish God's purposes through either *miracles* (by suspending the laws of nature—perhaps by adding or subtracting energy from the universe or moving particles to locations they could not inherently move to) or *non-miraculous means* (by collapsing certain indeterministic processes to an outcome that the processes *were already* inherently able to produce). As an example of the latter, imagine a particle that has a 50% chance of moving left and a 50% chance of moving right. If God forces it to move right, God hasn't suspended the laws of nature; God has merely collapsed some indeterminism to an outcome that might have happened anyway.

[3] I owe this idea to Darek Łukasiewicz.

[4] Theological determinism does not entail fatalism, since theological determinism allows that *God's* choices are contingent. Neither does fatalism entail determinism, since it is (at least epistemically) possible that every event is necessary but not determined—that every event is necessary simply for no reason.

[5] I owe this type of example to David Hunt.

[6] However, God does not know the counterfactuals of *divine* freedom—i.e., God does not know which decree *God* would choose if God were in the circumstances God was actually in. If God already knew which decree God would choose, surely this would impede God's ability to consciously deliberate and make a free choice.

[7] Prominent Molinists include Thomas Flint, Kirk MacGregor, William Lane Craig, and Alvin Plantinga.

Critiquing Theological Determinism

1. Moral Responsibility

Theological determinism (TD) appears to remove all human moral responsibility. Whether you are a righteous person or a criminal, all of your actions are entirely determined by external circumstances completely outside of your control, so that you simply act automatically, with no freedom to do otherwise. This can be illustrated with an analogy: Imagine that the wind blows a rock so that it rolls off of a ledge and shatters a vase below. Should we punish the rock for shattering the vase? Obviously not, because the rock was causally determined by an external force. It had no choice but to roll off; it was not free to do otherwise. It was clearly not the rock's fault that it shattered the vase.

Now imagine that the rock has an internal experience which includes feeling pain when it is punished. Should we now punish the rock for shattering the vase? Obviously not, since nothing relevant has changed. Now imagine that the rock's experience also includes the false belief that it freely shattered the vase and thus did something morally wrong. Now should we punish the rock? Obviously not; still, nothing relevant has changed. Regardless of the rock's internal illusions, it is still the case that the rock was constrained by an external force to shatter the vase. On TD, human persons, being externally determined to act, are not relevantly different from such a rock, and therefore it is impossible for human beings to have moral responsibility. But humans *do* have moral responsibility. Therefore, TD is false.

2. Determining Moral Evil

Some determinists think that God intentionally determines moral evil. But it seems morally wrong to intentionally determine moral evil. Consider two examples. First, suppose I persuade my friend to rape and torture some woman. I am so persuasive that eventually, they can't resist, and so they go and rape and torture that woman. It appears that I have done something wrong here. Why? Because I have intentionally determined moral evil. The fact that I didn't physically touch my friend doesn't change this.

Second, suppose I grow some cells into a conscious human and then implant a switch on their neck. The switch has two positions, (i) *act kindly* and (ii) *torture children*, and is wired to their brain so that whatever position it is in, the human must intentionally perform the indicated action. Plus, I set up the switch so that I have to hold it in the *act kindly* position; otherwise, it automatically snaps to the *torture children* position. Now suppose that sometime after creating this human, I intentionally let go of the switch, and the human starts torturing children. It appears that I have done something wrong here. Why? Because I have intentionally determined moral evil. The fact that I merely "let go of the switch" doesn't change this.

If such actions are wrong for me, surely they would be wrong for God. Surely morality doesn't have a double standard when it comes to intentionally determining moral evil.[1]

TDists might that God can cause moral evil as long as God does so *indirectly*—i.e., there are intermediate causes between God and the moral evil. But this seems wrong; there does not seem to be any relevant difference between direct and indirect causation. If I shoot and kill a random person with a gun, I technically only *indirectly* murder them, since the bullet is an intermediate cause. But clearly *I* still did something wrong. Therefore, the presence of intermediate causes doesn't seem to be enough to get someone off the hook when determining moral evil.

TDists might object that since God does not issue commands to God's self, God can do any act whatsoever without it counting as moral evil. But this seems wrong. God is constrained by God's moral perfection. This means that God is perfectly loving and good, and therefore cannot perform any action which is less than perfectly loving and good. Certain actions are self-evidently less than perfectly loving and good: for example, failing to perfectly love someone, or making a promise to help someone and then breaking that promise later on. The act of giving someone a divine command and then forcing them to break it and incur wrath upon themselves is clearly less than perfectly loving and good. Therefore, God cannot perform such an act.

TDists might object that because God is *sovereign*, he must specifically control or ordain every event. But this is a bizarre definition of *sovereignty*. As Kirk MacGregor and Braxton Hunter point out, to be *sovereign* means to be the king or ruler[2]—it means one has *significant* control over what goes on, and perhaps can intervene when necessary or desirable. It doesn't mean controlling the motion of every molecule or micromanaging every choice of every citizen.[3] God can be sovereign over a world of free choices. Why would we withhold such a great-making and useful ability from a perfect, maximally powerful God?

TDists might object that because God knows the future, humans do not have the freedom to choose otherwise. This works only if God's knowledge of human choices is fixed. See "Divine Sovereignty and Human Freedom" and "Critiquing Simple Foreknowledge" for discussion.

TDists might object with an example: Suppose that Frank, because of his previous free choices, has developed a mind so twisted that he has lost the freedom to resist murder. When he learns about a woman in the next room, he has no power to resist murdering her, but must walk into that room and murder her. In this case, God is the only thing in all of reality that can stop Frank. And so necessarily, if God does not intervene, Frank will murder her—in other words, God's decision to allow the murder *entails* that Frank murders her. Suppose that God chooses not to intervene. Surely a case such as this has happened at least once in history—I would guess that it happened many times over during events such as the Holocaust. And yet most theists would think it's permissible for God not to intervene here, even though that decision of non-intervention determines the murder.[4]

I agree that such cases happen, but in such cases, it is false that God's decision entails the murder. It is God's decision *plus* those disfavorable conditions—including Frank's corruption—that *jointly* entail the murder. So God's decision alone doesn't determine the murder.[5]

3. Divine Commands

Three more issues with theological determinism relate to divine commands. The first is that God gives us commands. These commands are not jokes, tricks, or deceptive, but are *genuine* commands. But then it seems that we should have the power to obey or not to obey them. If we were entirely unable to choose between obeying and not obeying, those commands would be deceptive. Plus, they would just be odd—I don't give commands to a rock, because I know that the rock is entirely unable to choose between obeying and not obeying.

Second, the issue is compounded because TDists typically believe that God attaches rewards and punishments to God's commands. For example, if we believe in Jesus before our physical bodies die, we will be saved. If we do not believe in Jesus before our physical bodies die, we will be eternally tortured. Why would God attach these rewards and punishments if God knew all along that we'd be entirely unable to choose between believing and not believing? Plus, TDists think that it is *God* who determines what we do. Why would God punish us for merely doing what God determines us to do? It's not as if the choice was up to us. It was up to God.

Third, surely God's commands reflect something about God's character and desires. If God issues a command such as "Love your neighbor as yourself" or "Do not commit adultery", surely these reflect God's desires—God *wants* us to love our neighbors as ourselves; God *doesn't* want us to commit adultery. But on TD, every time someone wrongs their neighbor, it was because God had determined them to do so. Every time someone commits adultery, it was because God had determined determined them to do so. But that means God is determining us to directly violate God's expressly stated desires. Surely this is not the right view of God.

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[1] TDists might object with the *authorial analogy*: Just as Tolkien is not blameworthy for the suffering and moral evil in *The Hobbit*, so God is not blameworthy for the suffering and moral evil in history. But to be honest, this seems ridiculous. None of the characters in *The Hobbit* ever existed, and so it is false that any of them ever suffered or committed moral evil.

[2] See Kirk MacGregor, "The Existence and Irrelevance of Gratuitous Evil", *Philosophia Cristi* 14.1 (2012): 165-182 and Braxton Hunter, in Cameron Bertuzzi, "The BEST Argument Against Calvinism w/ Dr. Braxton Hunter", *Capturing Christianity* (YouTube, 2020).

[3] Some anti-TDists such as Timothy Stratton object to TD by saying that it undermines our ability to have knowledge, since if many people's false beliefs have been determined by God, we can have no confidence that our own beliefs are true. But this doesn't seem to follow. Maybe God has determined that people generally have *true* beliefs—or at least *more true beliefs* than they would have if God allowed for libertarian freedom. In such a case, TD should actually give us *more* confidence in our beliefs than libertarian freedom should.

Others may object to TD by saying that it means that God *intends* for evil to occur. But this doesn't seem to follow. As Justin Mooney has pointed out, when I choose to raise my arm, that *determines* a bunch of chemical reactions and muscle contractions in my arm and nervous system. But that doesn't imply that I *intended* for all those processes to occur. See Mooney, in "Divine Intentions and the Problem of Evil", *Explain International* (Facebook, 2021).

[4] Thanks to Josh Beacom for prompting me to think about moral cases such as this.

[5] Thanks to Jeremy Kidd for correcting me on this.

Critiquing Simple Foreknowledge

1. Against Simple Foreknowledge Views in General

Recall the ant colony from "Divine Foreknowledge and Human Freedom". Suppose I am sitting on my porch, deciding whether to mow my lawn. Twenty feet away, the ant colony is thriving in my lawn—the dirt is piled up, and living, physical ants are crawling through its tunnels.

The simple foreknowledge theorist says that there are two ways things could play out from this point forward: I could just stay on my porch and do nothing, *or* I could get up, grab my lawnmower, and mow my lawn, which would imply that the ant colony *would not be there*—that the place where it actually is would just be a patch of ordinary grass. I have trouble stomaching this option. It seems that if anything is fixed, if anything is out of my control, it is the fact that there is *right now* a physical object in my yard.

Sure, I can think of a scenario in which I can get up and, in the next ten seconds, go destroy the ant colony. But that would not affect whether there is *right now* an ant colony in my yard. And sure, it seems fine to say that, at some point in the past, *before* the ant colony had moved into my lawn, it was possible for things to play out in such a way that I mowed my lawn and the ant colony had never moved in. But the simple foreknowledge theorist says that the ant colony is in my lawn *right now*, and that if I, *right now*, were to get up out of my chair and mow my lawn, then the ant colony would never have been there. But surely this option is inaccessible to me *right now*. (I am *not* saying that simple foreknowledge is inconsistent or incoherent. I am just saying that it is implausible.)

2. Against Ockhamism

As Linda Zagzebski points out,[1] God's foreknowledge seems to be a hard fact about the past. Suppose that, back in the year 2000, God foreknew that I would write this essay. Let 'F' be the name for the fact ⟨In 24 years, Chris will write the essay "Critiquing Simple Foreknowledge"⟩. And so in 2000, God foreknew F. Now, perhaps F was a soft fact about 2000, since F is partially about 2000 and partially about 2024. But the fact that *God foreknew F* seems to be a hard fact. God had a certain belief in God's mind, a certain internal mental state. The fact that God had a certain belief or internal mental state in 2000 seems to be a fact that is solely about 2000. But if God's foreknowledge is a hard fact about the past, then we do not have control over it, and so Ockhamism fails to preserve human freedom to do otherwise.

3. Against Non-Dependence Views

The non-dependence view suffers from arbitrariness. It is metaphysically random to have facts about future events just existing in the present for no entailing reason. Those choices could go hundreds of different ways, so why are those facts the way they are instead of being different?

4. Divine Foreknowledge of Divine Choices

One might worry whether *God* is free, if God knows all of *God's* future choices. Suppose that God knows for certain that later on, God will choose X. In addition, God knows for certain all of the perfectly rational reasons God will have for choosing X. When the time comes, can God refrain from choosing X? It seems not:

1. God cannot do something that is knowingly futile. *(Because God is perfectly rational.)*
2. Trying to avoid any future divine choice is knowingly futile.
3. Therefore, God cannot try to avoid any future divine choice.

It seems that the foreknowledge theorist should accept the argument and—in order to preserve God's freedom—say that God chooses *not* to be consciously aware of all of God's future choices.

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[1] Linda Zagzegbski, in Taylor Cyr and Matt Flummer, "The Free Will Show Episode 4: Divine Foreknowledge with Linda Zagzebski", *The Free Will Show* (YouTube, 2020).

Critiquing Calvinism

1. God perfectly loves every person.
2. If God perfectly loves every person, God desires the best for every person.
3. If God desires the best for every person, God desires everyone to be saved.[1]
4. If God desires everyone to be saved, God will not prevent anyone from being saved.
5. Therefore, God will not prevent anyone from being saved.

Premise 1. God perfectly loves every person.

This is clearly true, because God is perfectly loving. It is better to love a person than not to love that person. Since God is *perfectly* loving, God perfectly loves every person. By 'love a person', I mean 'value a person's existence, desire their wellbeing, and desire a relationship with them'.[2] By 'perfectly', I mean 'to the maximum possible extent'.

Calvinists might say that God does not perfectly love every person. But if they are right, then God is not perfectly loving. If God does not have perfect power over all of God's creatures, then God is not perfectly powerful. If God does not have perfect knowledge about all of God's creatures, then God is not perfectly knowledgeable. Why set a different standard for perfect love? More to the point, a perfectly loving God would not refuse to perfectly love one of God's own creations, made in God's own image, which God declared to be "very good". A god who refused to love such creatures would be morally or cognitively deficient.

Calvinists might object that God hates people because of their sin, but this is mistaken. First, Calvinism teaches that God has *unconditionally* refused to love certain persons, since God determined their damnation from eternity, *not* based on their future actions. Second, Calvinism teaches that God loves plenty of persons (i.e., the elect) who are just as sinful as the reprobate, so clearly, sin is not a sufficient reason for God to hate someone. Third, Calvinism teaches that God commands us to love our enemies (Matt 5.44). This command appears to be a glimpse into the heart of God. If so, then God loves God's enemies, and thus God loves every person.

One might object that God's love does not depend on God's actions: God would still be perfectly loving even if God decided to send everyone to eternal conscious torment. But this is incoherent. If God sends everyone to eternal conscious torment, then God does not love anyone except for God's self. It is not perfectly loving to love only yourself and no one else, and to make sure that everyone else has the worst life imaginable.

Does the reader not share these intuitions? If a parent plays favorites with their children (assuming that all of their children are behaving equally well or poorly), we know that there is something morally objectionable about doing so. And if a parent decides to disown some of their children before they are even born, we know that this is morally unacceptable. And if a parent decides to consign some of their children to endless torment and suffering before they are even born—what person who calls themself a Christian could condone such behavior?

Calvinists might object that the reprobate are *not* children of God, and so the parent-child analogy doesn't apply. But this ignores the relevant choice. On Calvinism, God *chose* who would be the elect and the reprobate. *This* is the choice under discussion. And so it's not at all clear that the parent-child analogy is *not* applicable. In fact, surely it *is* applicable: *prior* to God's elective decree, every human was (or would be) merely one of God's own creations, made in God's image. This seems sufficiently close to the parent-child relationship. God's not caring about one of God's creations is relevantly similar to a parent's not caring about one of their children.

Here is another argument that God perfectly loves every person:

6. If God perfectly loves *only* some persons, then God's love is either irrational or random.
7. God's love is neither irrational nor random.
8. If God does not perfectly love *only* some persons, then God perfectly loves every person.
9. Therefore, God perfectly loves every person.

(6) Suppose that I have ten children, and all of them develop skin cancer. Suppose that I have more than enough money to easily afford treatment for all of them. Now, suppose that nine of my children are morally terrible, but one of them is kind and sweet. Based on that, I decide to give the sweet child treatment and let the remaining children waste away in misery. Now, this choice might be morally suspect, but at least I had a *differentiating reason* for it. My reason for giving treatment to only one child was based on a reason that differentiated that child from the others.

Now suppose instead that all ten of my children are morally terrible, and I *still* decide to give one of them treatment. The reason I give only that child treatment is that Jupiter is larger than Mars. Now, this is clearly a stupid reason. The fact that Jupiter is larger than Mars has nothing to do with *any* of my children; it has zero connection to them whatsoever. Nothing about the size of Jupiter or Mars provides any reason for favoring one child over another. And so my choice, in addition to being morally suspect, is also irrational.

Calvinists believe that there is nothing about humans that earns them favor with God. All humans are inherently morally valuable creatures, created in the image of God, and all have sinned and become guilty. There is no difference: there is zero reason to select any person for salvation over any other person. And yet Calvinists believe that God has done exactly that: for no reason that inherently favors selecting any person over others, God has selected some persons over others. And this isn't just some trivial decision: this is the final salvation or damnation of souls. Therefore, God's choice, in addition to being morally suspect, is irrational. And if God's election was not a choice but rather something that necessarily flows from God's nature, then God's election is straightforwardly random for the same reason.

Calvinists might object that God's reasons for election are mysterious and hidden from us. But this objection does not touch the argument. Even if Calvinists don't know what God's reasons *are*, Calvinism *does* teach what God's reasons are *not*: God's reasons are *not* based on anything about humans (age, status, wealth, ethnicity, gender, orientation, sinfulness, merit, or anything

else). This is all that my argument requires. Calvinism's stated teaching is enough to entail that God's elective decree, hidden or not, is irrational or random.

Premise 2. If God perfectly loves every person, God desires the best for every person.

Calvinists might object that there are "different types of love". This is obviously right in some senses, but it is hardly relevant to the premise. If God desires even slightly less than the best for some person, then God does not perfectly love that person. And if God unconditionally desires for some person to be consciously tormented with no end and no hope of redemption, then this is the opposite of perfect love. If the Calvinist states that such a desire amounts to perfect love, then they are just using the word 'love' but meaning something exactly opposite of how virtually everyone else uses the word.

Premise 3. If God desires the best for every person, God desires everyone to be saved.

To be saved entails being in an everlasting, positive, and harmonious relationship with God.

Calvinists might object that for some people, "the best" is not to be in a relationship with God, but rather to be condemned, because they are sinners and deserve condemnation. But this response misses the point, for two reasons. First, it misunderstands what "the best" is. "The best" is a state of maximal flourishing and fulfillment. Calvinists insist that maximal flourishing and fulfillment for every human can only be found in glorifying and having a relationship with God. Second, the response again ignores the fact that, on Calvinism, God *did* choose for certain sinful, condemnation-worthy persons to be in a relationship with God, so the presence of sin is not sufficient for someone's "best" to be everlasting separation from God.[3]

Here is another argument that God desires everyone to be saved:

10. For any human person P, it is good that P be perfect and in a relationship with God,
    and it is bad that P be imperfect and separated from God,
    and these two states are incompatible.
11. For any two states X and Y, if X is good, and Y is bad, and X and Y are incompatible,
    then God desires X over Y.
12. Therefore, for any human person P,
    God desires for P to be perfect and in a relationship with God
    over P's being imperfect and separated from God.

(10) What is the chief end of man? According to the Westminster Confession of Faith (which Calvinists endorse), the chief end of man is "to glorify God and enjoy Him forever". Now, surely this means that it is the chief end of *every* human to glorify God and enjoy Him forever. Similarly, consider John Piper's signature quote: "God is most glorified in us when we are most satisfied in Him". These sentiments appear to entail that it is good for any human person to be in a relationship with God, since this is a fulfillment of that end; and it is bad for any human person

to be separated from God, since this is a frustration of that end. And by 'good', I don't mean 'good for that person'—I mean 'good independently of what anyone thinks'.

Calvinists might object that the second conjunct of (9) is false, because it is *good* for P to be separated from God, since God's justice is satisfied by punishing P. But this is mistaken. Neither God's justice, nor God's love, nor P's chief end is satisfied by P's being separated from God.

(11) is entailed by God's perfect goodness. God always desires the good over the bad. Otherwise, God would have imperfect desires.

Premise 4. If God desires everyone to be saved, God will not prevent anyone from being saved.

This follows from God's perfect rationality: If God desires that every person be saved, then God will not act in a way that prevents every person from being saved, since to do so would be to sabotage God's own desires. The only exception would be if God has an overriding desire for something that would preclude everyone's being saved. But as we will see below, it is very implausible that there are such overriding desires.

Calvinists might object that God has two wills: a *pleasurable will*, which is what God desires, and a *sovereign will*, which is how God acts. And so God desires that all persons be saved, but God acts so that certain persons are damned. But these two wills are incompatible with God's perfect rationality. First, if God is perfectly rational, God will try to bring about what God desires most. If God desires something, and it is a good thing, and God is capable of bringing it about with no negative consequences, but then God chooses to do the exact opposite of what God desires most, thus eternally sabotaging God's desires, then God is being irrational.

Second, if God desires for every person to be saved, we should ask: *why* does God desire such a thing? Because it is a good thing. But if it is a good thing, and it does not entail any evil, then God as a perfect being must act to bring it about.[4] Bringing everyone into a relationship with God does not entail any evil. So in order for God to be rational, God's sovereign will must accord with God's pleasurable will.

Calvinists might object that God is unfair—if God were fair, then God would give everyone what they deserved: eternal conscious torment. But this objection is irrelevant to the argument, since premise 4 is about God's desires, not God's fairness.

Calvinists might object that God has an overriding desire to satisfy God's justice. But this is also irrelevant. First, nothing about justice requires choosing some persons to be eternally separated from God. Justice merely requires that whenever wrongdoing is committed, a penalty must be paid to make things right. If there is no wrongdoing, no penalty needs to be paid. God's justice would be completely satisfied if God chose not to create anything at all and simply existed alone in perfect peace. Is the Calvinist arguing that God created sinners so that they would commit wrongdoing to disrupt God's justice, just so that God could punish them to satisfy God's justice?

Second, God's justice was already satisfied by the atonement of Christ, so there is no need for God to separate anyone from God's self. Calvinists might respond that God's justice is satisfied only for the elect, not for the reprobate. But this appears to contradict 1 John 2.2, which states that Christ is the atoning sacrifice for the whole world. Surely the author of 1 John did not mean to say that Christ presented an only partially satisfactory sacrifice—that Christ's sacrifice didn't quite do the job.

In any case, if God's justice isn't satisfied for the reprobate, then there will *never* be a point at which it is satisfied for them, since on Calvinism, the reprobate must be tormented forever. God's justice remains forever unsatisfied for a large percentage of humanity. In addition, God's love remains unsatisfied forever, since God's desire to be in a relationship with the reprobate is forever frustrated. So neither God's justice nor God's love is completely satisfied. This makes God a massive failure on both counts. On the other hand, if we accept that Christ's sacrifice fully satisfied divine justice, and that God is pursuing every human and will genuinely try to reconcile every human to God's self (contra unconditional election), then we can believe that God's justice is fully satisfied, and we can at least justifiably *hope* that God's love will be fully satisfied.

Calvinists might object that God's overriding desire is for God's justice to be on display via God's eternally separating certain persons from God's self. But this seems wrong, for five reasons. First, such a desire is morally suspect. Is the Calvinist arguing that God desires to display God's justice by creating persons to make them suffer for wrongdoing that God chose for them to do? That wouldn't be a display of justice; it would be a display of injustice and cruelty.

Second, it is implausible that God would desire *anything* that requires eternally frustrating God's desire for a relationship. Suppose Bob commits a wrongdoing, and God desires for Bob to be forgiven of it and reconciled to God. It seems implausible and suspicious for God to *also* have a desire that requires Bob to suffer eternally and be separated from God. What kind of perfect God would have two such desires which are so radically at odds with each other?

Third, it is an implausible view of justice that if someone commits a wrongdoing, God is obligated to make them suffer for it. This puts an unnecessary limit on God that, again, hinders God from fully expressing God's love with respect to the wrongdoer. A more plausible view of divine justice is one in which divine justice is satisfied by destroying the evil, transforming the wrongdoer, and reconciling the wrongdoer to God.

Fourth, God's justice was already on perfect display in the crucifixion of Christ, so there is no need to further display God's justice.

Fifth, to whom is God trying to display God's justice? To himself? God already has full comprehension of God's justice. Then is it to creatures? In that case, God would have no need to separate anyone from himself in order to display God's justice, since God could simply reach into everyone's mind and transform it to recognize and be in awe of God's justice.[5] And God would not *want* to separate anyone from himself, since God wants to be reconciled to everyone.

Calvinists might object that God desires to create certain persons so that they can commit evil and then God can eternally separate them from God's self. This response is both morally horrendous and incoherent, for three reasons. First, it implies that God unconditionally desires for certain persons, made in God's image, from God's own "very good" creation, to suffer eternal conscious torment and separation from God's self. Second, Calvinism implies that people in hell continue to sin for eternity (since, on Calvinism, people who are separated from God are "unable to not sin"[6]), so Calvinism implies that God has determined a never-ending series of morally evil actions. Third, this objection implies that God wills for persons to sin so that God can punish those persons for sinning, even though sinning was what God willed for them to do. So persons are punished by God for doing exactly what God wanted. This is nonsense.

Calvinists might object that if unconditional election is false, then people can save themselves, or people can earn their salvation, or people can rightfully demand salvation from God, or God owes salvation to people, or God's grace is not freely bestowed. But none of these things is true. Rather, out of love, God freely offers salvation to all people. The only thing we must do to be saved is to accept that offer and place our trust in Jesus. Having faith does not earn us salvation. It does not make us righteous or change the fact that we are sinners who have broken God's commands and are guilty before God. But God has promised that when someone places their faith in Jesus, *God* will save them and declare them righteous in God's sight.[7]

To conclude, consider the Nazis, who corralled Jews into enclosed rooms and then pumped carbon monoxide into the rooms until the Jews suffocated to death. Or consider Vladimir Putin, who has bombed hundreds of hospitals and ambulances in Ukraine, killing civilians in their own homeland. Or consider Peter Scully, who invited Filipino children into his home, filmed himself molesting and torturing them, and then released the videos on the Internet. It is clear that the god of Calvinism is much, much worse than all these people combined, since that god has intentionally decided for billions of persons to be endlessly tortured in a way that is much worse than any torture that any human could come up with.

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[1] Thanks to Jerry Walls for the basic reasoning in premises 2 and 3.

[2] This definition is from one of Ryan Mullins's podcasts. I believe he acquired it from Adam Johnson—although I am not sure. I will update this as soon as I find out.

[3] It also seems that Calvinism implies that *we* shouldn't want everyone to be saved. After all, if our desires are supposed to conform to God's desires, and God wants some people to be eternally tortured, then *we* should want some people to be eternally tortured.

[4] Calvinists might object that the existence of evil proves either (i) that God desires evil or (ii) that God's sovereign and pleasurable wills are different. But this is wrong. There is a third option: God desires and acts to bring about certain goods that require certain evils which God doesn't desire.

[5] I owe this point to John Peckham.

[6] R. C. Sproul, *Chosen by God* (Tyndale Momentum, 2021), 66.

[7] I owe these points to Leighton Flowers, "Calvinism's Big 3 Proof Texts", *Soteriology 101* (Podcast, 2024).

Critiquing Molinism

1. The Influence Problem

Consider any event in which God guarantees a specific creaturely action. I will use Paul's writing of Romans as an example:[1]

1. If Molinism is true, then (i) God set the circumstances for Paul to write Romans, and (ii) Paul could have refrained from writing Romans.
2. If God set the circumstances for Paul to write Romans, then God's setting those circumstances influenced Paul's choice to write Romans in that situation.
3. If Paul could have refrained from writing Romans, he could have done something that would have required God's setting of those circumstances to have been different than it actually was.
4. A person in a situation cannot do anything that would require an influencer (something that influenced their choice in that situation) to have been different than it actually was.[2]
5. Therefore, Molinism is false.[3]

(1) By 'God set the circumstances for Paul to write Romans', I mean that God acted in some providential way that guaranteed that Paul would write Romans. On Molinism, God can do this because God knows in what circumstances Paul would freely write Romans. And on Molinism, God can guarantee an event in this way *without determining it* (otherwise, Molinism provides no providential benefit beyond simple foreknowledge). Although not every Molinist might believe in the *specific* scenario of Paul and Romans, every Molinist should think that God has guaranteed *at least one* event without determining it. Otherwise, God's middle knowledge is pointless.

(2) This is obvious. Supposing that Paul was in Corinth in 57 CE when he wrote Romans, God did whatever it took—tinkering with the particles in the Big Bang, causing natural disasters, revealing God's self to various people—to guarantee that Paul was in Corinth in 57 CE. These actions influenced—were responsible for—the circumstances in which Paul wrote Romans.

(3) This is obvious. If Paul had refrained from writing Romans, then either God would have mistakenly believed that Paul would write Romans, or God would have correctly believed that Paul would *not* write Romans. The former option is impossible, leaving us with the latter. If Paul *had* refrained from writing Romans, then God's setting of the circumstances *would have been* different than it actually was. What would the difference be? Well, in the very least, God, whilst setting the circumstances, would have believed ⟨If Paul were in Corinth in 57 CE, Paul would refrain from writing Romans⟩, which God does not actually believe. And, probably, God would *not* have set those circumstances with the *intention* that Paul write Romans, since God would have known that that intention would have been thwarted, and so God's setting of the circumstances would have been knowingly futile.

(4) This seems obvious as well. For example: I was born in a hospital in Virginia, so my being born there influenced my current situation: it influenced my memories, my parent's finances, and my physiology (e.g., circumcision). Can I do *anything* that would require that I had been born in a different hospital? Surely not. Perhaps my mother *could have* chosen for me to be born in, say, Maryland instead. But now that I've *already been born in Virginia*, and it has influenced my current situation, the Maryland possibility is closed off for me at this moment. Now, it seems quite plausible that this holds in every other case of influencers.[4]

The Molinist might object: "Why *can't* we do things that would require influencers to have been different? It's not as if there's some causal power constraining Paul to write Romans". True, there is no *causal power* constraining Paul, but surely there are constraints that are *non-causal.* For example, *logical constraints*: no one can make something contradictory. God cannot make something red all over and not red all over at the same time and in the same sense. Once we see that there are logical constraints, there doesn't seem to be much reason to reject (4).

Plus, rejecting (4) means thinking that we are free even if factors completely outside of our control both influence and entail *all* of our actions.[5] These factors—God's past choices—are "outside of our control" in the sense that we can't influence them at all. Rejecting (4) means that we have a kind of "power" over God's past choices: namely, we can do things that would require God to have made different choices than God actually made. If Paul could have refrained from writing Romans, then Paul could have done something that would have required God to create a world in which Paul refrained from writing Romans. This seems bizarre and counterintuitive. Surely God's long-ago choice of which universe to create is not up to our present choices.

Also, note that on *theological determinism* (TD), factors completely outside of our control both influence and entail all of our actions; and Molinists agree that on TD, our choices are determined. So how is Molinism any different? The Molinist might say two things. First, on Molinism, God's choices influence but do not *cause* our choices. But I don't see any relevant difference between influence and causation, since both can be either deterministic or indeterministic. (For me, they ultimately reduce to the same relation.) What difference could there be, such that causation snuffs out freedom but influence allows for it?

Second, on Molinism (as opposed to TD), God's providential acts are based on facts about what each person *would* do in any given circumstance in which God might place them. But God did not *choose* these facts (which are *counterfactuals of creaturely freedom* or CCFs), and this saves our freedom. But, I ask, why would it matter whether CCFs are chosen by God? It seems to make zero difference to our freedom *now*, since whether or not God chose them, all CCFs were true long ago, completely outside of our control. The Molinist might object that since God didn't choose the CCFs, that allows us to have the kind of "power" over them mentioned above. But why is that? Why couldn't we have power over CCFs if they *were* chosen by God?

Plus, these objections about CCFs are not relevant to (4). (4) doesn't say that we can't have power over CCFs—that wouldn't budge any Molinist. (4) says that we can't have power over

something *that happened in the past and influenced our current situation*. Again, refer to the hospital example above.[6]

And so, I tentatively conclude that Molinism is false. God cannot guarantee any event without determining it. And since (as it seems) guarantee without determination is the only providential benefit of middle knowledge, God's middle knowledge becomes providentially useless. Middle knowledge can enable God to know the future, but since the only way for God to guarantee an event is to determine it (which doesn't require middle knowledge), middle knowledge ends up being a fifth wheel.

2. The Intention Problem

1. Necessarily, God does not set up circumstances *specifically with the intention* for something to happen, all the while knowing *for certain* that it would not happen.
2. If (1), then a person in a situation cannot frustrate an intention of God's that God specifically had when placing that person in that situation.
3. If Paul can refrain from writing Romans, then Paul can frustrate an intention of God's that God specifically had when placing Paul in his situation.
4. Therefore, Paul cannot refrain from writing Romans.[7]

(1) is obvious. It would be knowingly futile and thus irrational for God to set up some circumstances *specifically with the intention* for something to happen, all the while knowing *for certain* that it would not happen. Now, of course, maybe we can frustrate *some* of God's intentions,[8] but surely not any of God's intentions where God is intentionally acting to bring about a certain outcome, since that would require God to knowingly set God's self up for failure.

(2) is obvious. If there's no possibility that God allows these sorts of active intentions to be frustrated, then there's no possibility for a creature to frustrate these sorts of active intentions.

(3) seems wrong, for the simple reason that God could have had different intentions. If Paul were to refrain from writing Romans, that would not have *frustrated* God's intentions; that would simply have implied that God had *different* intentions. And so this argument fails on this error.
Justin Mooney also argues that even if the argument is sound, God could Molinistically providentially order the world not with intentions about *specific* creaturely actions, but rather with *broad* intentions that accommodate a range of different outcomes. In other words, God might guarantee that either A, B, or C happens without guaranteeing a specific outcome out of those three. This allows for a "sliver of freedom" within which creatures can freely act.[9] Of course, if the intention argument is sound, then it is *determined* that either A, B, or C happens, and so middle knowledge is again unnecessary. But again, (3) seems wrong.

3. The Grounding Objection

Molinism entails that there are infinitely many (or at least very many) true *counterfactuals of creaturely freedom* (CCFs)—facts about what free creatures would freely do in any circumstances that God might place them in. I find several issues with positing these CCFs. I discuss these issues in "The Open Future" and so will not repeat that discussion here. To me, the grounding objection is evidence against Molinism. But I do not think it is decisive.[10]

Molinists might object that having libertarian freedom *entails* the existence of counterfactuals of freedom. But I would ask: in the moment when God was deciding which world to actualize, did *God* have libertarian freedom? If so, then there were counterfactuals about how *God* would have chosen; and if God was omniscient, then God would have already known how God would choose before God chose! Surely this knowledge would sabotage God's ability to make a free choice. And so it seems the Molinist should deny that there were counterfactuals of divine freedom. But this rebuts the Molinist's claim that libertarian freedom entails counterfactuals of freedom.

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[1] This is my combination and development of two arguments: the first by Philip Swenson in Jordan Hampton, "A Dilemma for Molinism (Dr. Philip Swenson)", *The Analytic Christian* (YouTube, 2021), and the second by Nevin Climenhaga and Daniel Rubio, "Molinism: Explaining our Freedom Away", *Mind* 131.522 (2022): 459-485. See Kirk MacGregor, *Molinist Philosophical and Theological Ventures* (Pickwick Publications, 2022), ch. 4, for responses.

[2] In other words, people do not have *counterfactual power/control* over their influencers (or that their influencers are not *counterfactually dependent* on those people). See Kirk MacGregor, in Timothy Stratton, "Defeating the Dilemma for Molinism", *Freethinking Ministries* (YouTube, 2021).

[3] Formally:

C*xy* ≔ *x* can do *y*
I*xy* ≔ *x* is an influencer to the situation of *y*
R*xyz* ≔ *x*'s performing action *y* would require *z* to have been different than it actually was

1.	M → (G · C*pw*)	
2.	G → I*gp*	
3.	R*pwg*	
4.	∀*x*∀*y*∀*z* ((I*zx* · R*xyz*) → ~C*xy*)	
5.	M	CPrem
6.	G · C*pw*	MP 1, 5
7.	G	Simp 6
8.	I*gp*	MP 2, 7
9.	I*gp* · R*pwg*	Conj 3, 8
10.	~C*pw*	MP 4, 9
11.	C*pw*	Simp 6
12.	~M	RAA 5-11

[4] If we could influence God's choices, then we could create a loop of influence: our actions influence God's choices, which in turn influence our aforementioned actions. I explain my rejection of influence loops in "Circularity".

[5] This point, including the following point about theological determinism, is from Climenhaga and Rubio, "Molinism: Explaining our Freedom Away".

[6] Thanks to Jeremy Kidd (here) and Kirk MacGregor (here) for discussions on earlier versions of this argument.

[7] This problem is adapted from the second argument in Swenson, "A Dilemma". Swenson's argument hinges on the idea of some event's being *crucial* to God's plan, so that there is no possible world in which God allows the event to *not* happen. I found that I do not need that extreme a premise, since I can just appeal to God's perfect rationality.

[8] MacGregor, *Molinist Philosophical and Theological Ventures*, chapter 4.

[9] The broad approach is adapted from Justin Mooney, in "Divine Intentions and the Problem of Evil - Justin Mooney", *Explain International* (YouTube, 2021). Timothy Stratton defends the broad approach in "Dr. Strange, Dr. Stratton, and Dr. Swenson", *FreeThinking Ministries*. Stratton argues that the only event God guarantees is the salvation of every person who could possibly be saved.

Stratton also says that he is open to the view that there is only one creature-containing feasible world with the best salvific outcome. This view is prone to an objection:

- Let 'necessarily' mean 'metaphysically necessarily'.
- Let 'possible' mean 'metaphysically possible'.
- Let a *creaturely world* be a possible world that contains savable creatures.
- Let *the Cs* be all the creaturely worlds that God can create (taking into account God's power, God's knowledge, and true CCFs, but ignoring God's moral perfection).
- Let *W* be one of the Cs.

1. If W is the best of the Cs, then necessarily, God chooses W (or else doesn't make creatures).
2. If necessarily, God chooses W (or else doesn't make creatures), then W is the only possible creaturely world.
3. If W is the only possible creaturely world, then W is not freedom-permitting.
4. Therefore, if W is the best of the Cs, then W is not freedom-permitting.

(1) seems obvious at first: God as a perfect being necessarily chooses the best of all the feasible options, if there is a best. If W is the best of the Cs, then necessarily, if God chooses one of the Cs, God chooses W. (Now that we've taken God's moral perfection into account, we see that all the other Cs are actually *infeasible* for God.)

(2) is obvious: The antecedent states that it's necessary that *either* W obtains *or* there are no creatures. That means that every possible creaturely world other than W is impossible.

(3) is obvious: If W is the only possible creaturely world, then every creaturely world other than W is impossible, which entails that every creaturely world other than W is infeasible for creatures in W, which entails that there are no feasible alternatives to creatures in W, which entails that W is not freedom-permitting.

In a Facebook conversation with me, Stratton rejected the equivalent of (3), insisting that "by definition, this world is the best feasible FREEDOM-PERMITTING world God can create". Now, he and I had earlier discussed freedom-permitting worlds, but my argument here doesn't define W as freedom-permitting, and so Stratton's response doesn't engage with my argument.

I later realized that (1) is false. Molinism teaches that the CCFs could have been different. That means that the Cs could have been different. God could have been "dealt" a different set of Cs than God actually was dealt. And so the fact that W is the best of the actual Cs does not imply that W is the best of all worlds that are *possibly* Cs.

[10] Note that Molinism requires there to be *essences* of people that are independent of their existence. For on Molinism, God had middle knowledge of how a whole host of possible creatures would act—possible creatures that God never actually created at all. In some sense, God *knew something about those non-existent creatures*. Anyone who rejects this idea of creaturely essences, or the view that one can know what the free, indeterministic decisions of creatures would be who will never actually exist, will also need to reject Molinism.

Defending Universalism

Universalism is the view that every created person will eventually and permanently be saved, or be liberated, or enter into positive union or relationship with God or ultimate reality. Universalism is *not* the view that there is no hell, or that all religions lead to salvation, or that there is no punishment for sin, or that everyone goes immediately to heaven when they die.[1]

I ARGUMENTS FOR UNIVERSALISM

1. The Unlimited Opportunities Argument

1. God endlessly and perfectly loves all persons.
2. If God endlessly and perfectly loves some person,
   then God endlessly desires to be in a relationship with that person.
3. If God endlessly desires to be in a relationship with some person, then that person will never permanently lose an opportunity to be in a relationship with God.
4. If all persons will never permanently lose an opportunity to be in a relationship with God, then eventually, everyone will be saved.
5. Therefore, everyone will be saved.[2]

(1) is obviously true: If God is *essentially* perfectly loving, then surely God is *endlessly* perfectly loving. And it would be absurd for something as unpredictable as physical death—a car accident, a virus, a murder—to be God's "cutoff point" for loving someone.[3] If a baby is aborted in the womb, does God stop loving them? No. What if a child is murdered at age seven? No. What if they die from cancer at age twelve? No. So where does God "draw the line" and declare that God doesn't love someone anymore? *Nowhere*. God's love endures forever.

(2) is obviously true, because God's perfect love for some person entails that God desires for them to find flourishing and fulfillment to the greatest degree. And of course, such flourishing and fulfillment can be found only in a relationship with God.

(3) is obviously true, because God would not sabotage God's greatest desire for someone by either permanently hiding from them or permanently removing their ability to repent. In addition, God, being all-loving, cannot truncate a person's freedom in such a way that they are permanently unable to seek God; nor would God allow any other agent to do so, as that would go against God's greatest desire for that person. And there is nothing legal preventing God from seeking anyone, since the atonement of Christ has fully satisfied the demands of divine justice. And so no person will permanently lose the opportunity to repent and be saved.

(4) is obviously true: For each unsaved person, there is a non-zero probability that they will repent within each finite duration. And given infinite time, anything that remains possible will happen. Therefore, each unsaved person will eventually repent *at some point* in the future, no

matter how distant.[4] Consider also that as time passes, the *cumulative probability* that each unsaved person will repent only increases, converging toward 100%.[5] If there are 1 billion people in hell, and the probability of each person's repenting within a given year is 10%, then there is a >99.9999999999999% chance that *everyone* will repent within 1000 years.[6] This should give us at least as much confidence in universalism as we have in *any* theological belief.

Against (3), one might object that God has set up the world so that once an unrepentant person physically dies, there is no longer any chance for them to be saved. But this would be unloving and irrational on God's part. A loving God who desires to be in a relationship with someone would not sabotage his own desire by creating a cutoff point after which there is no chance for that person to be saved. And physical death is an arbitrary cutoff point. Many theists already think that God doesn't send infants or children to hell when they die. What about a teenager who hasn't quite decided whether to believe, and then gets killed by a drunk driver? If God still loves them, God will continue to provide opportunities for them to be saved. How could he not?

Against (3) or (4), one might object that people can degrade and drift farther and farther away from God, in a way that makes the probability of their repentance vanishingly small as time goes on, perhaps reaching zero. But this seems wrong, for four reasons. First, perhaps God creates people so that they are unable to degrade in this way. This wouldn't necessarily violate our freedom, since God has *already* created us in a way that we are unable to do certain things, and God can still leave open *some* continuing possibility for anyone to reject God.[7] Second, God can periodically "nudge" people in ways that do not undermine their freedom, but merely shift their circumstances or present them with new information and thereby reopen their ability to repent.[8]

Third, there are limits to the value of free will. Free will *is* valuable, but it is simply not worth certain costs. Suppose my child is running around in the playground, and nearby is a bottomless hole. If my child falls into it, they will fall forever and ever, with no escape. If I see my child running toward that hole, you can be sure that I will snatch them away from the hole, even if that means violating their freedom. So it seems clear that God would act to prevent permanent degradation, even if that requires some violation of freedom.[9] Briefly violating a person's freedom to show them the truth is better than letting them suffer horrendously without end.

Fourth, maybe God might eventually simply remove all our irrationalities and moral defects and reveal God's character to us. In that case, it seems the *only* thing we could do is to accept God. It also seems that our freedom is taken away, but maybe this isn't so much of a problem. One might object that if God can override some people's freedom, why wouldn't God just do it for everyone? I would respond that maybe God sees more value in a world where as many people as possible freely choose God, even if God has to override the rest.

One might object that if people in hell can repent and go to heaven, then people in heaven can apostatize and go to hell. But this seems wrong. In hell, since God is constantly reaching out to people, there are never-ending reasons to repent. But in heaven, the conditions prevent even the slightest inclination to apostatize; apostasy is impossible.[10]

2. The Not-Worth-It Argument

1. If God were not able to save everyone, then God would not have created humans.
2. God created humans.
3. If God is able to save everyone, and God created humans, then God will save everyone.
4. Therefore, God will save everyone.

(1) seems right, for four reasons. First, in a world in which God exists alone, God is perfectly content. But in a world in which some moral creatures suffer endlessly in separation from God, and also *continue to sin and curse God into the endless future*, God's greatest desire for each of these creatures is endlessly unsatisfied. If God loves these creatures, God would be endlessly grieved by their continuing torment and sin. Surely it is not worth it for God to create such a world. Surely God would rather exist alone, in perfect peace and contentment.

Second, there seems to be no obligation to produce a person (e.g., by having a baby), even if one thinks that person will have an overall wonderful life. It's not as if we're hurting that nonexistent person by not producing them. But there *does* seem to be an obligation *not* to produce a person if one thinks that that person will have an overall absolutely horrendous life.[11] If this is correct, then God has no obligation to create anyone, but God *does* have an obligation *not* to create people who will have overall horrendous lives (i.e., by endlessly suffering). But that means that if God must choose between endless torment and being alone, God must choose being alone.

Third, one might think that the alone world is at least as valuable as any other world, perhaps because the alone world has no imperfections. In this case, since endless torment is worse than universalism, endless torment is therefore worse than the alone world, in which case God would choose the alone world if endless torment and the alone world were the only two options.

Fourth, if people suffer endlessly in hell, some of them will have had terrible earthly lives—lives marked with devastation, pain, and loss. But that means there are *irreversible tragedies*—tragedies that are never redeemed or defeated. This, besides making the problem of evil enormously more difficult for theism, seems as clearly as anything to be the type of scenario God would have every reason to avoid. On the other hand, if universalism is true, then *there are no irreversible tragedies*. Every person who goes through immense suffering eventually submits themselves to God and is redeemed, and their tragedy is defeated.[12]

The open theist might object that God cannot guarantee universalism, and so God wouldn't know whether God *could* save everyone. But, even if God doesn't know the future, God knows all the different *possibilities*. If God saw that universalism was *impossible*, then God would choose the alone world. Plus, I argue below that universalism is *necessary* and therefore guaranteed.

(3) is obvious. Given that God created humans, God would obviously choose saving everyone over saving only some people and eternally separating everyone else from God's self. Again, God's greatest desire for humans is for them to come into a relationship with God.[13]

3. Loved Ones in Hell, Grief in Heaven

1. If our loved ones will remain in hell endlessly, our joy in heaven will be endlessly tainted.
2. Our joy in heaven will not be endlessly tainted.
3. Therefore, our loved ones will not remain in hell endlessly.[14]

(1) is obvious: If you genuinely love and care about someone, then you will be saddened to know that they are undergoing endless agony, with no chance of escape. Unless you are seriously emotionally impaired, knowing about their suffering will cause you pain, thus tainting whatever joy you might have in heaven. There are four types of responses to (1):

1. Indifference: One might suggest that we will know about our loved ones in hell, but we just will not care about them. We will be focused on worshipping God and communing with the fellow believers in heaven. But this is preposterous. If you are at a party with a bunch of friends, and then you come to learn that your sister, or brother, or child, or close friend has been kidnapped and is being tortured and mutilated right this moment, then unless you are either morally deficient or emotionally impaired, you will be horrified at what's happening.

2. Rejoicing: One might suggest that we will *rejoice* in knowing that our loved ones are in hell, since their punishment is a display of God's righteousness and wrath against the wretchedness of sin. Now, maybe we will rejoice that, in the *abstract*, God's righteousness is being displayed, but if we truly *love* the person being punished, then we care for their well-being and will be saddened to know that *they* are suffering. For example, if your child is a drug dealer and gets locked up in prison, you could be glad that justice is being served *in general*, but saddened that it is *your child* who is in prison.

3. Amnesia: One might suggest that we will simply forget about our loved ones—God will alter our memories so that we aren't even aware of their suffering. But this would be a deceptive, "sweeping under the rug"-type of move on God's part. It would be a workaround rather than a solution. If people are suffering in agony, and there is a genuine opportunity for you to help them, then is the solution to just block them out of your mind so that you are not bothered by their suffering anymore? No. And in the case of hell, there *is* a genuine opportunity to help those in hell, since God is omnipotent.

4. Intermittent Reunion: One might suggest that we will intermittently be reunited with loved ones in hell—say, once per month, over and over again, endlessly. This will supposedly abate our grief at their suffering. But this seems to be a deficient response. Think for a second about the state of mind of our loved ones in hell. Are they remorseful or not? If not—if they are still rebelling and cursing God—then it will obviously *not* be a comfort to us to see them rebelling and cursing God and wallowing in sin. But if they are remorseful and willing to turn from their sin and commit their life to God, then God would save them.

II ARGUMENTS AGAINST UNIVERSALISM

Below I address the following fourteen arguments against universalism:

1. Universalism makes life, or evangelism, or suffering pointless.
2. Universalism has the unthinkable result that people such as Hitler are eventually saved.
3. Universalism fails to satisfy God's justice.
4. Universalism violates human free will.
5. Universalism violates divine free will.
6. Universalism has the bizarre result that everyone in hell would immediately repent.
7. Universalism does not take certain Christian doctrines seriously.
8. Universalism makes salvation insignificant and taken for granted.
9. Universalism entails that some people are saved by hell instead of by Christ.
10. Salvation requires faith, and faith is impossible after you die and see God face-to-face.
11. Rejecting an infinitely good God deserves an infinite punishment.
12. Some people would always reject God in any possible circumstance.
13. If universalism is true, then it must be necessary, which violates human leeway freedom.
14. There is no world that is feasible for God wherein everyone freely repents.

1. Pointlessness

One might argue that if each created person eventually enters into a loving relationship with God, then life is pointless and nothing matters. But this seems wrong. The purpose of life is to enter and remain in a loving and fulfilling relationship with the perfect Creator of the universe. And so we matter. God matters. The people we love matter. Activities such as positive creative projects, prayer, Bible reading, and serving others matter, because they can strengthen relationships and contribute to flourishing and spiritual growth. It *does* matter what you believe and what you do. As long as you reject God, you will be separated from God, which is a terrible state that we want to avoid and help others avoid. Is the particularist really saying that someone needs to undergo endless suffering and despair in order for life to matter?

One might argue that on universalism, evangelism is pointless. But again, this seems completely wrong. The reasons for evangelizing on universalism are the same as on non-universalism: We want to share the good news that God loves every person, and saves people from their sins, and transforms their lives. And God wants us to share that good news too. Separation from God, even if finite, can still be absolutely horrible, and we should try to help people avoid that, just as we try to help people avoid other painful things. And sharing the gospel can be an intrinsically valuable activity that strengthens relationships and leads to mutual truth-seeking.[15] Is the particularist really saying that we need the threat of endless horrendous suffering in order for us to share how excited we are about God's love and gift of Jesus Christ? As Robin Parry has stated, evangelism "is partaking in God's glorious means of reconciling the world to himself".[16]

One might argue that it's pointless for *God* to create a bunch of people, bring many of them through horrible evils and suffering, and then just save them all. Why not just create everyone in heaven? Before answering this, I want to point out that the same sort of objection can be raised against particularism: why not just create some people in heaven and others in hell, instead of making them first endure a temporary earthly life with pain and pleasure? The answer is the same in both cases: God has good *reasons* to allow temporary suffering before the final redemption of creation. Some of these reasons might be unknown to us, similar to God's reasons for allowing certain inscrutable evils. One plausible reason is that God wants to create an environment wherein persons can freely choose to enter into a loving relationship with God. The difference between universalism and particularism here is that, on universalism, God actually manages to redeem all of creation; whereas on particularism, God fails to (or refuses to), either letting some evils continue endlessly, or else having to obliterate creatures that God couldn't save.

2. Corrupt Persons

One might argue that, on universalism, since everyone will eventually be saved, then extremely corrupt persons will eventually be saved—Hitler, Stalin, Jeffrey Dahmer, and so on. This is correct. Eventually, they will repent of their sin and (if Christianity is true) believe in Christ and submit their lives to Him. Christians already typically believe that extremely corrupt persons can be saved—take the Saul of Tarsus, for example, so this consequence of universalism should not be troubling to them. What *should* be troubling is the view that some of God's creatures remain eternally corrupted and rebellious are never redeemed. Of course, universalism does not teach that their salvation will be quick or easy. It may take decades or even centuries of hardship and turmoil for these persons to see the light and humble themselves before God. And so it appears that universalism actually provides the *best* treatment of corrupt persons.

3. God's Justice

One might argue that, on universalism, God's justice is not satisfied. But this is mistaken, for three reasons. First, on Christian universalism (at least on a penal substitutionary view of the atonement), God's justice is fully satisfied by Christ's sacrifice on the cross.

Second, on any form of universalism that involves retributive justice (i.e., that sometimes persons must be punished not for their benefit but instead *merely* because they have committed wrongdoing), people could be punished only for as long as it takes to pay off their penalty. Then they could have the opportunity to repent and be saved. It would be unjust for God to endlessly punish someone for only a finite sin. For example, think about how implausible it would be for a perfect God to punish someone for billions and billions of years for only two or three sins.

Third, it seems that the highest view of God's justice is one that requires God to redeem all sin and evil. But if people continue to sin in hell without end, then God's justice remains endlessly unsatisfied; God is not victorious over sin and evil. And so it looks like universalism is the *only* view on which God's justice is satisfied.

4. Human Freedom

One might argue that universalism violates human free will in a way that non-universalist views do not. But this is mistaken, for two reasons. First, as the Unlimited Opportunities Argument demonstrates, universalism is compatible with even hardline views of libertarian freedom such as leeway libertarianism.

Second, consider what the non-universalist typically holds to: they believe that God has set up the world so that some people die and are eternally separated from God, without thereafter ever having the *slightest* opportunity to repent and be saved. *This* view violates human free will, since it entails that many humans do *not* have the free will to repent.[17] If one desires a view that guarantees human free will, one should hold to the view that people in hell *never* permanently lose the opportunity and ability to repent. But, as I've argued in the previous essay, such a view entails universalism. And so universalism turns out to be the *only* coherent view on which human freedom is not violated.

One might argue that true free will demands that God give us a choice to decide our *everlasting* fate—i.e., to make a choice that irreversibly seals our everlasting separation from God. But this seems completely wrong. First of all, giving us such a choice would be extremely unloving. Imagine giving your child the opportunity to try methamphetamine, except in this case, if they get hooked, they remain addicted forever! Second of all, we are obviously *more* free if we *never lose* the opportunity to accept God.

Richard Swinburne argues that God wants to give us the choice to make ourselves into the types of creatures we want to be, that it is a *great good* for us to have that sort of autonomy. But this autonomy comes with the risk that a person may form themselves into a creature who is morally incorrigible, desensitized to evil, unable to choose the good. In addition, Swinburne argues, although God can ask us to repent once, or twice, or three times, God cannot ask us *infinitely many* times to repent—eventually, God must respect our autonomous choice and leave us alone.

Swinburne makes a powerful case. However, it ultimately seems wrong. How could the value of human autonomy *ever* outweigh the risk of being endlessly tormented in separation from God, and suffering the fruits of absolute moral corruption? The value of autonomy can only be finite, whereas the negative consequences of finally rejecting God are potentially infinite. And consider that God is our Father. Recall the playground example described above. Surely the value of allowing one's children to "have autonomy as to whether to go near the hole" does not outweigh the endless agony and terror they would suffer if they decided to jump into it. Also, note that universalism does *not* say that God ever asks anyone to repent infinitely many times. Quite the opposite—it only takes finitely many times for everyone to repent!

And so universalism is the only view on which God's love is satisfied, God's justice is satisfied, and human freedom is not violated. What more could we ask for in a theological view?

5. Divine Freedom

One might argue that on universalism, God's free will is limited, since God is essentially constrained to keep reaching out to unrepentant humans, over and over again, until they repent. God is not free to either abandon or annihilate them.[18]

This is true. There are certain things God cannot do—make a true contradiction, cause himself to cease to exist, remove one of his essential properties, and so on. There are certain other things that God cannot do, not because God isn't *powerful* enough, but because God's *perfect goodness* or *perfect love* prevents him from doing it. God cannot sin, or lie, or torture people for fun, or create a universe in which everyone suffers endlessly. Similarly, it seems evident that God's love would prevent God from either abandoning or annihilating a morally valuable, conscious human.

6. Immediate Repentance

One might argue that universalism leads to a bizarre and unlikely scenario regarding the choices of everyone who doesn't accept God in this life.[19] Suppose that Christ returns and this age ends. Suppose that, say, one trillion unbelievers are thrown outside the city. Now consider what they might think: *Wait a second—I'm in hell! Hell is actually real!* They see the shining city in the distance and realize that they have completely missed out on the source of life and love and goodness. They realize that Christianity was the true religion all along, and so there's no longer any doubt or ambiguity regarding what they should believe or do, as there might have been on earth. Then they all feel remorse for their sins and genuinely repent. And so one trillion people go to hell for about one day and then leave. This seems like a bizarre and unlikely scenario.

I agree that this is a very strange scenario, having hell immediately filled and then emptied. However, I do not think it provides evidence against universalism. Suppose that what is described above *is actually how people behave* once they find themselves in hell: *every single person* comes to their senses and repents virtually right away. In that case, what would God do? Ignore them? Cast them off forever, in contradiction to Lamentations 3.31? No, God would want to save them. Perhaps they must first go through some painful sanctifying process first, or maybe they can all get in immediately. Either way, *if we suppose* that people really would behave this way upon entering hell, then the only reasonable option is to say that God would save them.

But, it seems reasonable to think that many people will *not* act this way upon entering hell. Consider Swinburne's autonomy point from earlier. Some people will have shaped themselves into despicable creatures—self-absorbed, rude, insensitive, stubborn, hateful, and unforgiving. Some people will not even care to glance at the city in the distance. Others, upon gazing at the city, will feel loathing toward it. Some will feel like it is a place of judgmentalism and intolerance and legalism. Some will want to hold on to their own sinful cravings and thoughts, and be unwilling to let go. It is painful to let go of sin and resentment and bitterness. One recalls the people in C. S. Lewis's *The Great Divorce* who took a bus ride from hell to heaven[20]—some of them saw the truth face-to-face but still were unwilling to soften their hearts.

So I don't see sufficient reason to think that God would both (1) suddenly make all things crystal clear to every hell-dweller *and* (2) suddenly remove all the moral defects and weaknesses of every hell-dweller without their will, especially those who have spent decades of their earthly lives being indifferent or resistant to God and corrupting their character. That's not how God operates today, and I see no reason to think that God would suddenly change God's ways. It seems more likely that God would prefer a more organic process, such as non-coercively nudging and influencing them, and sending out groups of people from heaven to evangelize and show love to these outsiders and beckon them to come join the feast in the city.

7. Not Taking Christian Doctrines Seriously

Many people object that universalism "doesn't take seriously" many core Christian doctrines, such as sin, hell, the holiness of God, or the atonement of Christ. But it is wholly unclear why one should think this. Suppose that, when Christ comes back and establishes his kingdom on earth, there are one trillion people who are unrepentant, and so they are cast outside the city into outer darkness.

Now suppose that each person, in his own time, eventually comes to see the error of his ways, feels incredible remorse, realizes the depths of God's love and Christ's sacrifice on the cross, and genuinely and freely turns away from his evil and flings his life down at Christ's feet. God, in response, pardons his sin and brings him into the kingdom. Which Christian doctrines have not been taken seriously? Hell is taken seriously: it is the dreadful state of separation from God. Sin is taken seriously: the reason the people were separated from God is that they were sinful and corrupt, and their continual sin degraded their character. The holiness of God is taken seriously: nothing unclean can enter the kingdom. And Christ's atonement is taken seriously: this story is compatible with penal substitution, on which the repentant's sins are fully paid for by Christ.

8. Salvation Is Insignificant

One might argue that if everyone is guaranteed salvation, then hell wasn't really a threat after all, and we lose the sense of salvation being a rescue *from* something unspeakably horrible. Thus, salvation threatens to become more of a routine thing that is taken for granted rather than something genuinely significant for the person being saved.[21]

I have three responses. First, universalism can still make sense of the significance of salvation using *counterpossible* reasoning: if God *were to* have let people be eternally tormented, then they *would have* suffered an unspeakably horrible fate. Eternal separation from God, even if it's *definitely* not going to happen to anyone, is still a *conceivable* fate that everyone avoids because of the unrelenting love of God.

Second, temporary separation from God is horrible enough! Being separated from God and caught in the clutches of sin and corruption for, say, fifty years, is horrendous. So universalism is *certainly* consistent with thinking of salvation as a rescue from something horrible.

Third, the universalist can simply grant the argument as far as it goes, and then perform a cost-benefit analysis of universalism versus eternal conscious torment. On universalism, everyone is saved, but perhaps the citizens of heaven lack the feeling of relief that they might have had if eternal torture had been a genuine possibility. On eternal conscious torment, however, while the citizens of heaven feel extra relieved because they avoided hell, there *are* people being tortured in agony without end. Clearly, the cost of having some people endure endless torture far outweighs the minor cost of having some people, who are already experiencing eternal bliss, miss out on feeling extra relieved or feeling like their salvation is extra significant.

9. Saved by Hell

One might argue that if universalism is true and some people go to hell, only to eventually repent and enter heaven, then those people are saved by hell rather than by Christ.[22] But this is mistaken. On Christian universalism, those people are saved by Christ.

10. Salvation Requires Faith without Sight

One might argue that salvation requires faith, and faith is impossible after you physically die and see God face-to-face. In other words, "sight" precludes "true faith". Thus, no one can repent after physical death; and since some people physically die before repenting, universalism is therefore false.[23] But this is mistaken. Sight does not preclude saving faith. Doubting Thomas and many others saw God face-to-face and had saving faith.

11. Infinite Crime, Infinite Punishment

One might argue that rejecting an infinitely good God is an infinitely evil crime and therefore merits an infinitely long punishment.[24] But this seems wrong as an objection to universalism, for six reasons. First, one might take a restorative, non-retributive view of justice, on which the only thing that the crime of rejecting God "demands" is that God is prompted to reconcile the wrongdoer to God's self.

Second, one might take a restitutionary, non-retributive view of justice, on which a criminal is punished in order to right the wrong and compensate the victim for the loss. On this view, it makes no sense to endlessly punish someone who has rejected God, since God hasn't been harmed and hasn't lost anything, and punishing the rejector doesn't compensate God in any way.

Third, perhaps it is inaccurate to call God 'infinitely good', as if God's value is $\aleph_0$. Perhaps it is more accurate to say that God is *perfectly good*—without any flaws. Now, rejecting a perfect God is surely bad, but it is not clear that doing so merits being tortured endlessly.[25]

Fourth, Christians who take a retributive view of justice typically believe that Jesus paid an infinite price on the cross—otherwise, *no one* could be saved! So even if some people do reject God and merit an infinitely long punishment, Jesus has already paid that penalty.

Fifth, it's unclear what time frame for "rejecting God" the objector has in mind. Many people reject God at one point in their life and then later on accept God. What would be the relevant difference between that and a case where someone rejects God at one point in their life, then dies suddenly, and then later on accepts God?

Sixth, staying in hell forever appears to be an unsuccessful way of exacting infinite punishment. After all, there will never come a time when a person has been in hell forever, and so there will never come a time at which the full punishment is exacted and God's justice is satisfied.

12. Transworld Damnation

One might argue that some possible persons are *transworld damned* (TWD): no matter what type of world God were to place them in, they would endlessly reject God.[26] But this seems quite wrong, for five reasons. First, given the infinite amount of time that each person has to repent, it is impossible (or at least overwhelmingly improbable) that there are any possible free creatures who would endlessly reject God.

Second, for there to be TWD people, there must also be true counterfactuals of creaturely freedom (CCFs), and I argue against CCFs in "The Open Future".

Third, I argue that TWD persons do not have free will. There are two types of TWD persons:

- Let *Mega-Damned* persons be those who endlessly reject God in every possible world in which they exist.
- Let *Kinda-Damned* persons be those who endlessly reject God in every possible world that is feasible for God (given the true CCFs), but would eventually repent in at least some possible worlds that are not feasible for God.

Now, Mega-Damned persons are obviously not free to repent, since there is not even any *possibility* that they repent. But consider Kinda-Damned persons. Explanatorily prior to deciding to create Kinda-Damned persons, God knew that Kinda-Damned persons would not repent; this knowledge played some role in God's decision to create the universe the way it is. Now, what would have to be the case for a Kinda-Damned person to repent? It would have to be the case that God's past knowledge was different than it actually was. But God's past knowledge in this case is *explanatorily prior to* the Kinda-Damned person's decision to repent or not. I argue in "Critiquing Molinism" that no person has any control over things that are explanatorily prior to all of their own actions. But that means that Kinda-Damned persons *cannot* repent, and so they are no more free than Mega-Damned persons. And if no TWD persons have free will, then God wouldn't be violating their free will by determining them to repent.

Fourth, surely God could figure out a way to create a world *without* transworld damned persons. Fifth, if God couldn't even do that, then because of the Not-Worth-It argument, surely God would simply not create any humans with the ability to endlessly reject God.

13. Necessity and Human Leeway Freedom

One might argue that universalism precludes human *leeway freedom*, the ability to do otherwise:

1. If universalism is true, then necessarily, universalism is true.
2. If necessarily, universalism is true, then everyone is determined to repent.
3. If everyone is determined to repent, then when anyone repents, they are unable not to repent.
4. Therefore, if universalism is true, then when anyone repents, they are unable not to repent.

(1) seems right. If universalism is true, then universalism was feasible for God before God created anything. Unlike the Molinist, I don't think God's pre-creation options could have been different: whatever options God had, God *necessarily* had. And so if universalism is true, then *necessarily*, universalism was feasible for God before God created anything. And if necessarily, universalism was feasible for God pre-creation, then necessarily, God chooses universalism.

(2) seems right. Since necessarily, God chooses universalism and thus causes a universe in which everyone is saved, God thereby causally determines universalism. (This just falls out of the definition of 'causal determinism'.) And since universalism entails that everyone repents, God therefore causally determines that everyone repentts

(3) seems wrong. If everyone is determined to eventually repent, all that follows is that everyone is unable to *endlessly* resist God. It does *not* follow that when anyone repents, they are unable not to repent. The universalist can hold that whenever a person repents, they *could have* resisted and thereby delayed their eventual repentance. So while no person is able to *endlessly* resist, every person *is* able to resist for any finite duration.[27] Thus, for any possible world in which it takes X years for everyone to repent, there is some possible world in which it takes longer than X for everyone to repent. But there is no possible world in which a person never repents.

One might object that God would necessarily choose the world in which universalism takes the *shortest* to complete. But there are three reasons to doubt this. First, there are plausibly certain goods involved in some worlds in which universalism takes longer. (If this weren't true, one would wonder why God didn't just create us all in Heaven.) Second, perhaps there is *no* world in which universalism takes the shortest: perhaps, as God kept searching for shorter and shorter possible timelines for universalism, God found that there just *wasn't* a shortest timeline: the timelines just converged asymptotically. (Of course, God probably wouldn't need to "search" to find this out; presumably God would know it all in an instant.) Third, on open futurism, God can only set *conditions* that make it more likely for universalism to happen sooner.

One might object that if someone knows that they must eventually repent, then that takes away their freedom. I am not so sure it does, since that person need not know exactly *when* they will repent. But even if such knowledge takes away one's freedom, the universalist can posit that nobody or almost nobody who has not yet repented knows that they must eventually repent.

14. No Feasible World

"Are there an infinite number of feasible worlds, each containing a finite number of people?" If so, then surely "in some of them," everyone would freely be saved.[28]

William Lane Craig responds by saying that while universalism is *logically* possible (i.e., not involving a contradiction), there's no reason to think that one of the *feasible worlds* involves universalism without having overriding deficiencies (such as containing only two people). Craig also states that we should not think of free choices as random odds, such as throwing dice over and over again in order to eventually achieve a given combination.

But Craig's response seems wrong, for two reasons. First, if the free choice to accept or reject God is free in a *leeway* sense, then for each person, there is a genuine metaphysical possibility that they accept God. And so it *would* be the case that, the more feasible worlds there are, the higher the chance that universalism would occur (without overriding deficiencies) in *at least one* feasible world. Note that there are also infinitely many possible *creatures* God could create and infinitely many possible *configurations of circumstances* God could place them in!

Second, recall that I have argued that universalism is in fact metaphysically necessary (conditional on there being personal creatures, of course), in which case *every* feasible world with personal creatures is a universalistic one. This is because (as argued above), in every possible world, given enough time, everyone eventually repents.

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[1] Recommended reading for universalism:

- Andrew Hronich, *Once Loved Always Loved* (Wipf and Stock, 2023).
- Thomas Talbott, *The Inescapable Love of God* (Wipf and Stock, 2014).
- Eric Reitan and Josh Kronen, *God's Final Victory* (Bloomsbury Academic, 2013).
- Gregory MacDonald (aka Robin Parry), *The Evangelical Universalist* (Cascade Books, 2012).

[2] The standard name for this argument is the 'Infinite Opportunities Argument', but that is a misnomer, since technically everyone receives only finitely many opportunities, because everyone eventually freely repents, and so no further opportunities are needed. The word 'unlimited' thus seems more fitting (though not perfect).

[3] This idea is from Rob Bell, *Love Wins* (HarperOne, 2011).

[4] To show the proof more rigorously: Suppose a coin is tossed. If it lands tails, it is tossed again. If it lands heads, the tossing ceases. Let's examine all the different possible outcomes and see how likely each one is. In Outcome 1 (O_1), the coin lands heads on the first toss, and so $P(O_1) = ½$. In O_2, the coin lands tails, then heads, and so $P(O_2) = ¼$. In O_3, the coin lands tails-tails-heads, and so $P(O_3) = ⅛$. As we continue in this manner, it is clear that (1) the outcomes become less and less probable, converging toward a probability of 0, (2) there are infinitely many possible outcomes, and (3) each outcome has a finite, non-zero probability. In other words, any finite sequence of successive tails, no matter how long and unlikely, is still *possible*.

What about the outcome where the coin lands tails every time? Call this Outcome Omega (O_ω). We can't get to O_ω using the method described in the previous paragraph. That method will only produce longer and longer *finite* sequences of successive tails. One might argue that O_ω is possible. If it's possible to endlessly keep tossing the coin, then it's possible for the coin to endlessly keep landing tails. If this is true, then it is something that no agent could control. It is entailed by the indeterminacy of the coin. No agent could make a world with an indeterministic coin such that O_1, O_2, O_3, … were all possible but O_ω was impossible. The possibility of O_ω would just be a consequence.

But we can prove that O_ω is impossible. Consider the probabilities of O_1, O_2, O_3, …. What is the sum of all those probabilities? The sum of ½, ¼, ⅛, … is 1. That entails that O_1, O_2, O_3, … exhaust all the possibilities, which entails that O_ω is impossible. O_ω, of course, is akin to someone choosing to reject God infinitely many times.

[5] I first heard this reasoning from Joshua Rasmussen. Reitan and Kronen, *God's Final Victory* argues similarly.

[6] $(1-(1-0.1)^{1000})^{1,000,000,000} \approx 0.99999999999999999999999999999999999999$.

[7] I owe this first point to Eric Reitan. See Joseph Schmid, "Universalism and Eternal Hell | Dr. Josh Rasmussen & Dr. Eric Reitan", *Majesty of Reason* (YouTube, 2022).

[8] I owe this second point to Robert Hartman in Jordan Hampton, "How God Can Help People Freely Repent in Hell (Dr. Robert Hartman)", *The Analytic Christian* (YouTube, 2023).

[9] I owe this third point (and the example) to Joshua Rasmussen.

[10] I owe this point to Robert Hartman.

[11] David Benatar, *Better Never to Have Been* (Oxford University Press, 2006).

[12] Thanks to Brian Ballard for this point (personal correspondence).

[13] There is *terminating universalism*: there is some time after which every person remains saved: $\exists t \forall p$ Spt. But there is also *progressive universalism*: for every person, there is some time after which that person remains saved, but there is no time after which every person remains saved: $\forall p \exists t$ (Spt) · $\sim \exists t \forall p$ (Spt). This is because new people keep being born endlessly. This reminds me of the belief of some Hindus that though there is an endless cycle of life and rebirth, each person is on their own journey and will *eventually* find liberation. (See Huston Smith, *The World's Religions* (HarperOne, 2009).) Below are three considerations in favor of progressive universalism:

1. It seems rather pointless to have a finite phase where not everyone is saved, followed by an infinitely long phase where everyone is saved. Compared to an infinitely long phase, the finite phase is a drop in the bucket. Imagine that the finite phase takes one million years. Now imagine we get one *trillion* years into the infinite phase. It sure seems that the finite phase is unimportant on the grand scale of things.
2. God might want to keep on creating new people and universes indefinitely. It seems odd for God to just create, say, one trillion people, and then never create anyone ever again.
3. Perhaps one of the greatest goods is for someone to freely enter into a relationship with God. On terminating universalism, this good occurs for only a finite amount of time: once the last person repents, no one will ever repent again, and so one of the greatest goods will never occur again. On progressive universalism, however, that great good will continue to happen forever and ever.

Below are two considerations against progressive universalism:

1. Progressive universalism implies that God's desires are always frustrated, since there are always unsaved people. *My reply:* This seems right, although it seems that this frustration is not very serious, since God expects every unsaved person to eventually become saved.
2. On progressive universalism, God never fully conquers evil. There will always be unrepentant people, which means there will probably always be some level of ignorance and suffering. There will never be a day where the last sinner repents, evil is completely vanquished, and all of heaven rejoices. *My reply:* Perhaps I am influenced by some Western idea of what a good story is, but this reason is persuasive to me, and so for now I accept terminating universalism.

[14] See Eric Yang in Christopher Cloos, "Is Your Happiness in Heaven Disturbed by Permanent Separation from Your Beloved in Hell? | EP. 5", *Coffee with Philosophers* (Podcast, 2023). I owe the amnesia and intermittent reunion scenarios to Yang. I also owe the response to the rejoicing scenario to Yang.

[15] Thanks to Joe Schmid for this idea.

[16] Robin Parry, "15 Mar 2008 Christian Universalism - will all be saved?", *Unbelievable?* (Podcast, 2014).

[17] I owe this point to Andrew Hronich.

[18] I owe this argument to Jim Spiegel. See Zac Sechler, "276. Are All Saved? Debating Universalism vs Annihilationism (Andrew Hronich vs. Jim Spiegel)", *Adherent Apologetics* (Podcast, 2022).

[19] Thanks to Nick Bandy for this objection.

[20] See, for example, "The Great Divorce: The Self-Loving Mother", *The Great Divorce Project* (YouTube, 2016).

[21] I owe this argument to Jim Spiegel. See Sechler, "Are All Saved?"

[22] Andrew Hronich attributes this objection to Michael McClymond.

[23] This objection is suggested at least once in Remnant Radio, "What Is Universal Salvation: With Michael McClymond", *The Remnant Radio's Podcast* (Podcast, 2022).

[24] This type of objection goes back to Thomas Aquinas and is defended by William Lane Craig.

[25] Perhaps the range of possible moral values isn't comparable to the real numbers—allowing for endlessly worse and endlessly better values—but instead is comparable to the range of real numbers from 0 to 1: 0 is absolute depravity, and 1 is absolute perfection.

[26] The idea of transworld damnation goes back to Alvin Plantinga, *God, Freedom, and Evil* (Eerdmans, 1989).

[27] In other words, $\Box\forall p\exists t\ \mathrm{R}pt$ does not imply $\forall p\exists t\ \Box\mathrm{R}pt$ or even $\exists p\exists t\ \Box\mathrm{R}pt$.

[28] William Lane Craig, "Questions About Molinism", *Reasonable Faith* (Podcast, 2025). The question originally came from a person named Caden, although the original question was confusingly worded.

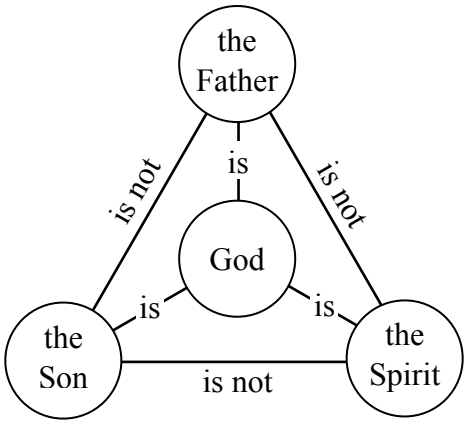
CHRISTIAN DOCTRINES

The Trinity

The *doctrine of the Trinity* consists of the following two claims:

1. There is exactly one God.
2. There are exactly three divine persons (the Father, Son, and Spirit), each of whom is properly called 'God'.[1]

The Trinity presents a philosophical puzzle: if each of the three persons is properly called 'God', how are there not three Gods? Some attempts at solving the puzzle use the following diagram:[2]



But this produces an inconsistency. If the Father is God (i.e., the Father and God are really just one and the same individual), and the Son is God (i.e., they are one and the same individual), then the Father is the Son, contrary to the upper-left line of the diagram. After all, so far we have really just been talking about one individual under three different names: 'the Father', 'God', and 'the Son'. To put it logically (letting *F*, *G*, and *S* be the Father, God, and the Son, respectively):

1. $F = G$
2. $S = G$
3. Therefore, $F = S$

To state the problem more precisely, let's ask: how many omnipotent entities are there?[3] (The word 'entity' here is the most general, neutral term for any thing of any type—a being, person, object, individual, substance, etc.) There can only be three types of answers, each inconsistent with the other two:[4]

1. There is exactly one omnipotent entity.
2. There are multiple omnipotent entities.
3. There are zero omnipotent entities.

These three answers correspond with three types of views on the Trinity:

1. *Single-entity models* affirm that there is exactly one omnipotent entity.
2. *Multiple-entity models* affirm that there at least three omnipotent entities. These models are typically *social trinitarian*, which teach that the three persons are genuine persons, each capable of self-consciousness, thinking, believing, desiring, loving, and so on.
3. *No-entity models* affirm that, strictly speaking, there are no omnipotent entities.

1. Single-Entity Models

Single-entity models affirm that there is one God, but reject the literal existence of three distinct divine persons. The challenge for such models, then, is to explain how there is even a Trinity at all. *Unitarianism* simply denies that there is a Trinity. On unitarianism, God is the Father; neither the Son nor the Spirit is God. Unitarianism appears to be at odds with the Bible, which teaches that the Son is God (e.g., Jn 1).

Modalism teaches that God manifests God's self in three different ways, appearing as the Father, Son, or Spirit at different times. Modalism is also at odds with Scripture, which portrays the Father as speaking about the Son (e.g., Matt 3.17) and the Son as praying to the Father and submitting to Him (e.g., Lk 22.42).

2. Multiple-Entity Models

Multiple-entity models affirm that there are three distinct divine persons, and so reject that there is only one divine entity. The challenge for such models, then, is to explain what unites the three persons so that there is only one God as opposed to three. There are a variety of multiple-entity models, five of which I describe below.

1. Tritheism teaches that there are three Gods. This view simply denies the doctrine of the Trinity, and is inconsistent with biblical passages that teach that there is only one God (e.g., Isaiah 44.6).

2. Compositional trinitarianism teaches that the Father, Son, and Spirit are the three meta-physical *parts* of God. God is *composed of* the Father, Son, and Spirit. And so technically there are *four* distinct divine entities (God, the Father, the Son, and the Spirit), but that is not worrisome, since there aren't four *separate* divine entities; rather, three of them compose the fourth. God isn't a separate being over and above the three persons.

In the case of something composed of parts, it seems natural to think that the parts are more fundamental than the whole, that the whole exists because of the parts. This certainly seems right in the case of physical composition: if we build a house out of bricks, it is obvious that the house exists *because of* the bricks; the bricks don't exist because of the house. But this presents a problem for compositional trinitarianism: if God depends on God's parts, then God himself is not

ultimate. Instead of having a single ultimate foundation of reality (God), there are really *three* separate ultimate foundations of reality (the three persons).

I have seen two types of responses to this problem. The first is *mutual dependence theory*, which says that God is dependent on God's parts, but that the three parts are mutually dependent on each other. Consider the case of a magnet, which has both a north pole and a south pole. The two poles are distinct parts of the magnet, but they are both essential for the magnet and for each other; you cannot destroy one of the poles without destroying the other. Perhaps something similar obtains among the members of the Trinity.[5] However, the mutual dependence view entails that each person is partially dependent on themself: the Father is partially dependent on the Son, who is partially dependent on the Father. This is implausible.

The second response is *no-dependence theory*, which says that there are no dependence relations between the persons and the Trinity. For example, consider a circle's area and its radius. The two are necessarily connected: the circle's area increases if and only if the radius increases. However, the area does not depend on the radius, and the radius does not depend on the area.[6]

3. Trinity monotheism teaches that God is identical to the Trinity; the Trinity is God. Moreover, there are two ways to be divine: to be God, or to be one of the persons of the Trinity.[7] "God is a soul that is endowed with three complete sets of rational cognitive faculties, each sufficient for personhood". God is thus a *tripersonal* soul, having three centers of self-consciousness.[8] Each of the three persons can be properly called 'God', but not in the sense of *identity*—rather, in the sense of *predication*. For example, to say "Jesus is God" is not to say that Jesus is identical with God, but rather to say that Jesus is *divine*.[9]

On Trinity monotheism, the three persons are individuals, and their existence is explained by the soul's being equipped with three sets of rational faculties.[10] Otherwise, however, it is unclear what their relation to God is. Perhaps they are parts of God. Or perhaps they bear some other relation to God that is unique and does not appear elsewhere in reality.

Regarding their inner experience, imagine that three friends get together and work out all their mutual problems so that they perfectly, unconditionally love each other and agree on everything —they share all the same beliefs, hopes, and desires, and engage in a perfectly loving relationship. Although they are perfectly united in these respects, each person has his own distinct experience of the world. On Trinity monotheism, God's *experience* of the world is similar to the combined experiences of those three perfectly united friends, although, of course, there is just one God having those three experiences.

4. Tripersonal monotheism is metaphysically the same as Trinity monotheism. However, on tripersonal monotheism, the Trinity is not identical with God; instead, the word 'Trinity' refers to the *group* of the three divine persons. These entities are the *members* of the group.[11]

As a side note, one might be able to modify Trinity monotheism or tripersonal monotheism by taking an anti-realist view on the three persons. In this case, there are not three numerically distinct persons, but rather only a single God who experiences reality in a tri-conscious way. We already know what it is like to experience reality through (at least) three different physical senses —sight, hearing, and touch, for example. Now extrapolate that to a being who, loosely speaking, experiences reality through three different centers of self-consciousness. We should not reify these three centers of self-consciousness as entities—we are simply talking about how the one divine entity (God) experiences the world in three different ways. If this works, then this would seem to be a non-unitarian single-entity model.

5. Monarchical trinitarianism teaches that the Father is the sole ultimate source of reality "and thus possesses a specific priority within the Trinity".[12] The Son and the Spirit are distinct beings who, though fully divine, are not metaphysically fundamental; they depend on the Father. The word 'God' most properly applies to the Father. This seems supported by 1 Corinthians 8.6, which names God as the Father and Jesus as the Lord: "there is one God, the Father, of whom are all things, and we for Him; and one Lord Jesus Christ, through whom are all things, and through whom we live". *Subordinationism*, a version of monarchianism, adds that the Son and the Spirit have a lesser divinity than the Father,[13] but this is inconsistent with biblical passages that teach that the Son is equal to the Father (Jn 1, Ph 2.6).

3. No-Entity Models

No-entity models teach that, strictly speaking, there are no divine entities. I describe two no-entity models below.

1. Classical theism teaches that God is not a *being*, but is *Being itself*. Hence classical theism's categorization as a no-entity model. Regarding the Trinity, classical theism teaches that the Father, Son, and Spirit are not really distinct persons, but talking about them is simply a way of talking about God under various self-loving relations. For example, the Father is "God as lover", the Son is "God as beloved", and the Spirit is "the conjunction of God as lover and God as beloved".[14] But this is implausible, for three reasons. First, if there aren't really three divine persons, then classical theism is really just unitarianism and so falls prey to its biblical problems. Second, if the "persons" are construed as mere relations within God, then they aren't really persons; they are relations.[15] Third, on this view, "the Spirit" is nothing more than the conjunction of the Father and the Son. But that can't be right; the Spirit is supposed to be a distinct person, not a combination of the other two persons.

The classical theistic model of the Trinity is arguably inconsistent. It appears to accept the following three mutually inconsistent claims:[16]

1. All that is in God is God. *(Tenet of classical theism.)*
2. The three persons of the Trinity are in God.
3. The three persons of the Trinity are distinct from each other.

To deny (2) would be to deny that there is even a Trinity. To deny (3) would be to deny the distinctions of the persons.

2. *Relative identity theory* teaches that there is no such thing as absolute identity or distinctness. Identity and distinctness are relative to different *kinds* of entities. *x* and *y* could be the same *N*, but different *P*s. Likewise, the Father, Son, and Spirit could be the same God, but different persons. It makes no sense to ask whether the Father, Son, and Spirit are the same "entity" or different "entities", since the word 'entity' is ambiguous at best and meaningless at worst. It only makes sense to ask whether they are the same *N*, where *N* is a certain type of thing (such as a God or person). For the same reason, it makes no sense to try to count the number of divine *entities*. One can count either the number of *Gods* (= 1) or the number of divine *persons* (= 3).

Relative identity theory is definitely counterintuitive. It certainly seems that there should be an answer as to how many divine entities there are. And everything in our experience seems to conform to absolute identity, so the relative identity trinitarian will need reasons to overcome the apparent *ad hocness* of applying relative identity to the Trinity.

Craig and Moreland object to relative identity using the following reasoning:

1. *F* and *S* are not the same person.
2. Therefore, *F* and *S* possibly fail to be the same person. (from 1)
3. Therefore, *S* is possibly not the same person as *F*. (from 2)
4. *F* is necessarily the same person as *F*.
5. Therefore, *F* and *S* are discernible. (from 3, 4)
6. If *F* and *S* are discernible, then *F* and *S* are numerically distinct.
7. If *F* and *S* are numerically distinct, then *F* and *S* are not the same God.[17]
8. Therefore, *F* and *S* are not the same God.

Now, someone who holds to absolute identity will naturally affirm this argument, but the relative identity theorist will naturally reject (6). The fact that *F* and *S* are discernible with respect to whether they are possibly the same person as *F* does not imply that *F* and *S* are numerically distinct. At most, their discernibility with regard to "being the same person as *F*" implies that they are not the same person. But that is just what the relative identity theory already believes.

Constitutionalism, a version of relative identity theory, employs the analogy of a stone pillar chiseled so that it is in the shape of a statue. Even though there is only one material object (a mass of stone), there are two distinct and simultaneous matter-form constitutions (a pillar and a statue) with different functions (to support and to display, respectively). More to the point, the pillar and the statue are the same *mass of stone*, but they are different *matter-form constitutions*. Similarly, the Father, Son, and Spirit are the same *God* (sharing the one divine substance, essence, and nature), but they are different *persons* (being different substance-form constitutions).[18] One might object that an essential property of God is *being triune*, and therefore each person cannot be God.[19] This seems to rule out constitutionalism.

[1] This characterization is from William Lane Craig.

[2] This is from *ESV Study Bible* (Crossway, 2014), 2513.

[3] Here we ignore the view of some Christians that Jesus gave up his omnipotence in the incarnation. For simplicity's sake, assume that we are talking about God before the incarnation.

[4] For a more complicated version of the problem, see Michael Rea, in Jordan Hampton, "A 'Constitutional' Model of the Trinity (Dr. Michael Rea)", *The Analytic Christian* (YouTube, 2021).

[5] Chad McIntosh, in Ibid.

[6] See William Lane Craig, "A Muslim's Four Objections to the Trinity Part One", *Reasonable Faith* (2024).

[7] See J. P. Moreland and William Lane Craig, *Philosophical Foundations for a Christian Worldview* (2nd edition, Downers Grove: InterVarsity Press, 2017), 588-594.

[8] Moreland and Craig, *Philosophical Foundations*, 592-593. Unfortunately, Craig and Moreland describe the view here by saying that God "would not be one person but three". Since one individual cannot be identical to three numerically distinct individuals, Craig and Moreland's phrase is a careless way of describing God as tripersonal.

[9] See Craig, "A Muslim's Four Objections".

[10] William Lane Craig, "Trinity Monotheism Once More: A Response to Daniel Howard-Snyder", *Reasonable Faith*.

[11] The metaphysical difference between Trinity monotheism and tri-conscious monotheism is that tri-conscious monotheism takes an anti-realist approach to the three persons. Otherwise, they are the same, and the language about them is the same.

[12] Joshua Sijuwade, "Monarchical Trinitarianism: A Metaphysical Proposal", *S. I. E. J. Lowe's Metaphysics and Analytic Theology* (2021): 41-80. See also Joshua Sijuwade, in Parker Settecase, "Monarchical Trinitarianism | w/ Dr. Joshua Sijuwade - PPP ep. 131", *Parker's Pensées* (YouTube, 2021).

[13] Keith L. Johnson, "Subordinationism", in *The Encyclopedia of Christian Civilization*, G.T. Kurian, ed. (2011).

[14] Rob Koons, in Joe Schmid, "Is Divine Simplicity Compatible with Trinitarianism? | Dr. Rob Koons & Dr. Ryan Mullins", *Majesty of Reason* (YouTube, 2020).

[15] Ryan Mullins, "Episode 48, Aseity, Simplicity, and Trinity with Chad McIntosh", *The Reluctant Theologian Podcast* (Podcast, 2020).

[16] James Dolezal affirms all three of these claims in *All That Is in God* (Reformed Heritage, 2017), making his view inconsistent (italics mine):

1. "Thus, all that is in God must be God" (47).
2. "… and introduce the idea of the persons as subsistent relations *in God*" (107).
3. "After that, I will briefly note the *real distinctions between the divine persons* in the Godhead" (107).

Formally:

1. $\forall x\ (Ixg \rightarrow x=g)$
2. $Ifg \cdot Isg \cdot Ipg$
3. $f\neq s \cdot f\neq p \cdot s\neq p$

4.	Ifg	Simp 2
5.	$Ifg \rightarrow f=g$	∀ Elim 1
6.	$f=g$	MP 4, 5
7.	Isg	Simp 2
8.	$Isg \rightarrow s=g$	∀ Elim 1
9.	$s=g$	MP 7, 8
10.	$f=s$	Identity 6, 9
11.	$f\neq s$	Simp 3
12.	$\sim f=s$	Equiv 11
13.	$f=s \cdot \sim f=s$	Conj 10, 12

[17] Adapted from Moreland and Craig, *Philosophical Foundations*, 591. I found their original phrasing of the argument ambiguous and elliptical. I have changed the variable names and laid out the reasoning in seven explicit steps as opposed to their original four.

[18] Michael Rea, in "A 'Constitutional' Model".

[19] Moreland and Craig, *Philosophical Foundations*, 589.

The Incarnation

The *incarnation* is the Christian doctrine that the second person of the Trinity (the *Son* or *Logos*) inhabited a human body in such a way that the resulting human being was both truly human and truly divine. On Trinity monotheism or abstractism,[1] the incarnation could be described by saying that God (a soul) combined with a human body in such a way that God became capable of personhood *through that body*; that is, God was able to be self-conscious, perceive, think, believe, and desire from the perspective of inhabiting a human body (in addition to remaining self-conscious in the other two ways, as the Father and the Spirit).[2]

1. The Person-Nature Problem

The *Logical Problems of the Incarnation* include the *person-nature* problem and the *inconsistent-property* problem. The person-nature problem is stated below:

1. The incarnation involved only one person.
2. The incarnation involved a complete human nature.
3. The incarnation involved a complete divine nature.
4. The involved human and divine natures were distinct.
5. If (2), (3), and (4), the incarnation involved two persons.

Nestorianism rejects (1), teaching (or at least implying) that the incarnation involved two distinct persons, the divine Logos and the human Jesus.

Docetism rejects (2), teaching that Jesus was merely divine, and that his human body was an illusion. *Apollinarism* teaches that ordinary humans are a combination of a human body (*soma*), an animal or non-rational soul (*psyche*), and a spirit or rational soul (*logos*), but that in the incarnation, the divine Logos replaced the ordinary human logos; thus an incomplete human nature is involved.

Arianism rejects (3), teaching that Jesus was not fully divine, but was begotten by the Father at some moment *after* the beginning of time.

Miaphysitism rejects (4), teaching that Jesus had a single nature that was truly human and truly divine.

Neo-Apollinarism rejects (5), teaching that the divine Logos was identical with Jesus' human rational soul, because what was needed was a rational soul that was *at least* human.[3]

There is disagreement about what the word 'Jesus' refers to. A divine being? A human being? A divine-human being? The tri-conscious view of the Trinity answers that Jesus is a divine being: Jesus is God as conscious in the second way. So Jesus is *fully* divine (since he is a divine being) and *fully* human (since he occupies a human body).[4]

2. The Inconsistent-Property Problem

The *inconsistent-property* problem of the incarnation refers to a family of problems, an example of which is the following four-part contradiction:

1. The incarnation involved a complete divine nature and a complete human nature.
2. If the incarnation involved a complete divine nature,
   Jesus (the divine-human being) possessed the property of omnipotence.
3. If the incarnation involved a complete human nature,
   Jesus possessed the property of non-omnipotence.
4. Jesus did not possess both omnipotence and non-omnipotence.

The problem arises with any pair of inconsistent properties (e.g., omniscience/non-omniscience, incorporeality/corporeality, everlastingness/temporarity). In each case, we are assuming that the two properties were possessed over the same time frame (i.e., during the incarnation). This problem should be taken seriously if we want a doctrine of the incarnation free of contradictions.

Christian orthodoxy[5] rejects (4), saying that Jesus was omnipotent with respect to his divine nature but non-omnipotent with respect to his human nature. But this simply restates the contradiction without solving it. After all, a *P* nature is the conjunction of all the properties essential to being a *P*. For example, a *horse* nature is the conjunction of all the properties essential to being a horse. Since a nature is a collection of properties, saying "Jesus was omnipotent with respect to his divine nature but non-omnipotent with respect to his human nature" is just to say "Jesus was omnipotent with respect to being omnipotent (among other things) but non-omnipotent with respect to being non-omnipotent (among other things)". This simply reasserts that Jesus possessed two inconsistent properties without solving the problem.

The orthodox Christian might respond that Jesus *qua* divine was omnipotent but Jesus *qua* human was non-omnipotent, in the same way that a Max *qua* businessman owns a hotel but Max *qua* father does not own a hotel; or Max *qua* father is a good cook but Max *qua* businessman is not a good cook. But this usage seems extremely counterintuitive, for three reasons. First, "being a businessman" and "being a father" are just *additional properties* of Max. I see no reason to promote such properties to "*qua* status". Second, *qua* language simply restates the problem. To say "Jesus *qua* divine is omnipotent" is just to say "Jesus as an omnipotent, omniscient, omnipresent, etc. being is omnipotent", which is contradictory with "Jesus as a non-omnipotent, non-omniscient, non-omnipresent, etc. being is non-omnipotent".

Third, unless we decide to abandon classical identity, person *P qua* role *R* is either absolutely identical with *P* or not identical with *P*; there is no third alternative. If *P qua R* is identical with *P*, then Jesus *qua* divine and Jesus *qua* human are each identical with Jesus, which means they are identical with each other and thus the same thing. And a given thing cannot possess inconsistent properties. On the other hand, if Jesus *qua* divine and Jesus *qua* human are not identical with each other, then we have abandoned orthodoxy and embraced Nestorianism.

The orthodox Christian might respond that the statement "Person *P* possesses property *x*" means "*P* has some *concrete nature* (a concrete instantiation of their being) that possesses *x*". Therefore Jesus was both omnipotent and non-omnipotent, because Jesus' divine concrete nature (God) was omnipotent, but his human concrete nature (the body-soul composite) was non-omnipotent.[6] But in the body-soul composite, is the *soul* identical with God or not? If it is, then the orthodox position predicates inconsistent properties of the same soul. If the soul is not identical with God, then the word *Jesus* refers to two distinct beings, God and the human body-soul composite. Apart from such a counterintuitive usage of the word *Jesus*, this view ends up denying the incarnation altogether, since God and the human body-soul composite are two distinct beings.

The *Superman* view rejects (3), saying that, in the incarnation, Jesus did not gain any properties inconsistent with the traditional divine properties. But this seems wrong, since Jesus was corporeal, whereas the *Logos* is incorporeal. Superman theorists might respond that they reject (2) in cases where the relevant properties relate directly to corporeality. This avoids that problem, but the Superman view has two more problems. First, it just seems absurd, since it implies that Jesus, as an infant, could contemplate quantum physics. Second, it runs against Mark 6.5, which teaches that Jesus was *unable* to do certain miracles.

Kenoticism rejects (2), teaching that in the incarnation, Jesus (who was and is identical with the *Logos*) gave up all divine properties inconsistent with being a human. *Weak kenoticism*[7] teaches that although Jesus gave up properties such as omniscience and omnipotence, Jesus remained divine because he did not give up any properties essential to divinity (i.e., properties that are part of the divine nature). The properties essential to divinity are properties such as *omniscience-except-when-kenotically-incarnate* and *omnipotence-except-when-kenotically-incarnate*. But there are three problems with this. First, these properties seem *ad hoc* and gerrymandered, sort of like the property of *standing-except-when-not-standing*. Second, allowing for such properties opens the door to obviously wrong scenarios such as a rock's being divine, because the essential properties of divinity might also include *omnipotence-except-when-a-rock* for all we know. Third, these properties verge on failing to make substantive claims about God, since *everything* that exists has the property of *omnipotence-except-when-not-omnipotent*. In other words, if someone already thinks there is a problem with God giving up God's omnipotence, positing these bizarre properties does not alleviate the problem at all.

Strong kenoticism teaches that there are very few essential divine properties and essential human properties. Perhaps the only essential divine properties are moral perfection, capability of self-consciousness and rationality, and involvement with the Trinity (i.e., being the Trinity, a member of the Trinity, or a composite that involves a member of the Trinity). And perhaps the only essential human properties are possessing a human body and having sense perceptions and experiences through the faculties of that body. This avoids any contradictions between Jesus' divine and human natures.

Strong kenoticism seems compatible with either a one-nature view or a two-nature view. On a two-nature view, Jesus possesses a human nature and a divine nature, and since these natures are

minimal, they are consistent with each other. On a one-nature view, the properties of these two natures are simply combined into a single divine-human nature. I don't see a substantive difference between these two views. I personally don't tend to think in terms of natures anyway; I just think in terms of objects and what they are like. Once we've described Jesus as a tri-conscious soul that experiences life through the lens of an ordinary human body with all its limitations, it seems that the threat of contradiction is neutralized.

Strong kenoticism thus allows that Jesus was limited in power and knowledge during his life on earth. It also allows that Jesus sometimes made mistakes or held false beliefs. Perhaps he tripped and fell once or twice as a child (or an adult). Perhaps he once thought Mary was in the house when she was not in the house. Perhaps as an adult he believed in some false scientific theories, such as that the earth was flat, or that the sun revolved around the earth

The idea of Jesus being mistaken about things may be uncomfortable to some, but let us examine the two alternatives. First, Jesus had supernatural knowledge throughout his lifetime. Second, in every situation in which Jesus was about to form a false belief, the Father (or Spirit) miraculously intervened to prevent him from forming that belief. Both of these seem odd and unnecessary. The Gospels obviously do contain instances of supernatural intervention for Jesus, but those instances are related to Jesus' mission, not to making sure he never holds a single false belief. Therefore it seems most reasonable to think that Jesus was at least capable of making mistakes or holding false beliefs during his life on earth.

One property that Jesus surely retained was *sinlessness*. This seems true for three reasons. First, it seems impossible for the divine soul, however limited, to ever become corrupted or intentionally transgress its own nature. According to certain theories of the origin of evil, God is essentially incorruptible, and the reason other objects become corrupted is by being at an epistemic or metaphysical "distance" from God.[8] Second, according to some atonement theories, Jesus had to fulfill the role of a perfect sacrifice in order to save humanity from their sins.[9] Third, the theology of Hebrews includes the sinlessness of Jesus (Heb 4.15). It also seems plausible that Jesus, in addition to being sinless, was also morally perfect (i.e., made the morally optimal decision in every situation, given his knowledge and abilities). This means that even though Jesus truly experienced strong urges to sin when tempted, it was *impossible* for Jesus to sin—that is, to consciously and intentionally commit a morally evil action.[10]

One might object that it is impossible for God to lose God's essential properties, such as omnipotence and omniscience.[11] But on the kenotic view, God does *not* lose any essential properties in the incarnation. God remains omnipotent and omniscient, but has access to those properties only through two of the three centers of consciousness. One might respond that it is impossible for God to be non-omnipotently or non-omnisciently conscious through the Son. But this just begs the question; the kenotic view teaches that such an event is possible.

One might object as follows:

1. During Jesus's earthly life, God was omniscient.
2. During Jesus's earthly life, Jesus was God.
3. Therefore, during Jesus's earthly life, Jesus was omniscient.[12]

The tri-conscious trinitarian would have to accept this argument, strictly speaking. After all, there is only one divine entity (God), and that entity is omniscient. The word 'Jesus' has to refer to something, and the only thing for it to refer to is God. Thus, Jesus is also omniscient.

But the tri-conscious trinitarian will argue that saying "God was omniscient" does not imply that God was omniscient *in all three of the possible ways*—or, to put it loosely, that all three of God's centers of consciousness had access to all knowledge. During Jesus's earthly life, God was omniscient, but in the weaker sense that *at least one* of God's centers of consciousness had access to all knowledge. In particular, two of them did, and one of them did not. Again, remember that talk of "centers of consciousness" is non-literal—we are simply talking about how the one divine entity (God) experiences the world in three different ways.

The monarchical trinitarian will reject (2), saying that Jesus and God are distinct divine entities; God is always omniscient, whereas Jesus was temporarily not omniscient.

3. Sonship

In the Gospels, Jesus frequently refers to "the Father", who has since been understood as the first person of the Trinity. What is the nature of this Father-Son relationship? It is clearly not a biological relationship, since the Father is immaterial. It seems that, most reasonably, the relationship is one of voluntary submission; Jesus uses the term *Father* to express how Jesus submitted to the Father and acted in accordance with the Father's will during Jesus' life on earth.

Whether this relationship is essential is controversial. Here I use the Greek term *Logos* to refer to the second person of the Trinity without commenting on his sonship, and the term *Son* to refer to the Logos specifically in his state of submission to the Father. The *Incarnational Sonship* view holds that the Logos became the Son at the moment of incarnation. One problem with this (from a biblical perspective) is that there are verses teaching that the Logos was *already* the Son before the incarnation (Jn 3.16, Gal 4.4). The view of the Nicene Creed is *Eternal Sonship*, which holds that the Son is eternally begotten of the Father, and that the Spirit eternally proceeds from the Father and the Son. One problem with this (from a biblical perspective) is that there are verses teaching that the Son was of equal status with the Father (Php 2.6). In addition, there is no clear biblical evidence that the Spirit eternally proceeds from the Father.

A middle position states that all three members of the Trinity are metaphysically equal, with no relationships of dependence, but that the Logos was the Son for at least a finite amount of time before the incarnation. This view gives us two options for sonship: either the Logos was always

the Son in virtue of always submitting to the Father, or the Logos submitted to the Father and thus took on the role of Son at some moment *finitely* before the incarnation.

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[1] See Bandy, "The Trinity".

[2] Craig and Moreland (see citation in note 3) contradict themselves when setting out their view (Neo-Apollinarism). They say, "God is a soul" (593), "The Trinity alone is God" (588), "The divine Logos [is] the second person of the Trinity" (607), and "The Logos was the rational soul of Jesus" (605). This fourth statement appears to be an error; I assume Craig and Moreland mean to say that the Logos is a person, not a full-blown soul.

[3] J. P. Moreland and William Lane Craig, *Philosophical Foundations for a Christian Worldview* (2nd edition, Downers Grove: InterVarsity Press, 2017).

[4] This, of course, assumes some sort of dualism. The tri-conscious view of the Trinity, when seems to provide an easy answer for the incarnation when considering dualism, but it doesn't do so well when considering physicalism. It seems that the best the tri-conscious trinitarianism who is a physicalist can say is that Jesus *inhabited* a human body by usurping its mental life from the beginning: from the time that the baby was conceived in the womb, all phenomenal information (qualia) that would normally form a brand new center of self-consciousness were instead supernaturally funneled to Jesus's consciousness, so that from conception to crucifixion, Jesus experienced life exactly how a regular human would. Of course, on this view, Jesus wasn't a human being in the physicalist sense, because Jesus was not a human body. Rather, Jesus was a divine being inhabiting and usurping the mental life of a human body. And of course, although that human body constituted a human being distinct from Jesus, it did not constitute a human *person* distinct from Jesus, since there was no mental life apart from that of Jesus.

[5] This is *orthodoxy* (lowercase "o") in the sense of the early church ecumenical councils' distinctions between *orthodoxy* and *heresy*. I am not referring to Orthodoxy (capital "O") as distinguished from Catholicism and Protestantism. All three branches of Christianity include orthodox Christians.

[6] Tim Pawl, in Jordan Hampton, "The BEST Defense of the Incarnation (Dr. Tim Pawl)", *The Analytic Christian* (YouTube, 2021).

[7] The *weak* and *strong* distinctions here are my own (as far as I know).

[8] See Kirk MacGregor, "The Existence and Irrelevance of Gratuitous Evil", *Philosophia Cristi* 14.1 (2012): 165-182.

[9] See William Lane Craig, *The Atonement* (Cambridge: Cambridge University Press, 2018).

[10] Therefore Jesus was not morally responsible for not sinning, since he could not have sinned.

[11] Thanks to Bradford Thornton for this objection.

[12] This argument is adapted from Andrew Moon.

The Atonement

The atonement of Christ is that act by which Christ accomplished reconciliation between God and man. What did the atonement consist of? This has been a matter of debate for centuries. Perhaps most centrally, it has been debated whether the atonement included *penal substitution*, the doctrine that Christ paid the penalty that we deserved because of our sins.[1]

1. Guilt, Penalization, and Justice

Guilt is quantitative, action-specific, and legal obligation to be penalized due to wrongdoing. Guilt is *quantitative*: one who murders incurs more guilt than one who steals a chocolate bar. Guilt is *action-specific*: one who commits three murders does not incur merely a certain *quantity* of guilt. Rather, they incur the guilt for those three specific acts of murder. Guilt is *legal*: it exists only within the legal system under which the wrongdoing is recognized as wrongdoing.

Penalization is intentional, harsh, and legal treatment of a party in response to wrongdoing. Penalization is *intentional*: it is not administered by accident. Penalization is *harsh*: it is intended to be undesirable and unpleasant for the recipient. Penalization is *legal*: it is administered by the legal system under which the wrongdoing is recognized as such, not by vigilantes.

Justice is proper legal treatment of parties. Justice is *legal*: it concerns only treatment administered by legal systems. If a legal system includes guilt, the legal obligation to enact proper penalization rests on both the guilty party and the legal system. Whenever proper penalization has not occurred, the justice of the legal system is *unsatisfied*. Under normal circumstances, the proper penalizations involve each guilty party's being penalized according to their guilt. After all penalizations are enacted, the legal system's justice is *satisfied*, on the basis of which the legal system can offer the guilty party a *pardon*, which is expungement of their guilt. If the party accepts the pardon, they become legally *innocent*, as if they had never committed the wrongdoing.

2. The Penal Substitutionary View

On penal-substitutionary theories of Christ's atonement (PSA), there is a *divine legal system*, under which human sin has caused two problems: divine justice is unsatisfied and humans are guilty. The solutions, then, are satisfaction of divine justice and expungement of human guilt. But satisfaction must occur before expungement can occur. So what does it take for divine justice to be satisfied? Divine justice is satisfied by penalization of the guilty—and not just any penalization, but the worst of all: separation from the Father. In addition, divine justice *must* eventually be satisfied. The penalty for our sin cannot be ignored. It must be paid.

This does not bode well for humanity, since it means that, by default, everyone who has sinned (i.e., every human) will be separated from the Father. Fortunately, God desires for us to escape this penalty. So out of God's love for us, God decided to bear the penalty *God's self*. How is this supposed to work? This is where penal substitution comes in. According to penal substitution,

committing wrongdoing is not the only way to incur guilt. One can incur guilt also by *imputation*. One type of imputation is *vicarious liability*. This happens when a certain party (the *representative*) agrees to be responsible for the wrongdoing of some other party (the *wrongdoer*). So if the wrongdoer commits a wrongdoing, their guilt is imputed to the representative. Note that this imputation does not remove the guilt from the wrongdoer; vicarious liability involves *replication* of guilt rather than mere transfer. However, the guilt of the representative is *exactly similar* to the guilt of the wrongdoer. For example, if the wrongdoer was guilty for murdering Jones, the representative will also be guilty for murdering Jones. Because of this, if the representative is penalized for murdering Jones, justice will be satisfied for that guilt, full stop—it will be satisfied for *both* the representative and the wrongdoer.

On a penal substitutionary view, we are the wrongdoers, Jesus is the representative, and the Father is the judge. Thus the Father imputed the guilt of every human to Jesus, and justly penalized Jesus for that guilt. The penalty was exactly what we deserved: conscious and spiritual separation from the Father. Jesus suffered the loss of wonderful, joyful, and perfect communion with the Father, a communion which he had enjoyed eternally. But because the penalty was paid, divine justice is satisfied for every sin that is ever committed. On this basis, God turns to humans to offer them expungement of their guilt. If a person accepts God's offer, God expunges the guilt of their past sins. But if a person rejects the offer, God sorrowfully leaves them in their guilt.

3. Questions

1. Did Jesus Satisfy Divine Justice for Every Person? Yes, since God desires for all persons to escape the penalty of separation from the Father.[2] Of course, satisfying divine justice for the sins of every person does not guarantee that every person will escape the penalty. Since the guilt of all sins was not merely *transferred* to Jesus but *replicated* to Jesus, a given person remains guilty until God expunges their guilt.

2. Did Jesus Satisfy Divine Justice for Future Sins? Yes; it would be odd for Jesus to cover only sins that occurred before the crucifixion and do nothing for sins that occurred afterward. So at the time of the crucifixion, there are two options. The first option is that God knew what post-crucifixion sins were going to occur, and God imputed them to Jesus. (Otherwise divine justice wouldn't be satisfied for those sins.) The second option might be taken by open theists: if God did *not* know what post-crucifixion sins were going to occur, and one still wants to hold to penal substitution, then one must reject that guilt is action-specific and instead say that Jesus simply paid a penalty of sufficient *value* to satisfy divine justice for *any* sins that might be committed. On this view, Christ was not guilty for, e.g., *murder*, but rather guilty *simpliciter*.

3. Will infinitely many Sins Be Committed? If each creature capable of sinning is eventually either morally perfected or destroyed, then No. But if some creatures continue to sin eternally into the future, then Yes. In that case, we have Jesus bearing the guilt of infinitely many sins (since guilt is action-specific). Although this seems odd, I am not convinced it is impossible. But if one thinks that infinitely many sins will occur *and* that Jesus could not have borne the guilt of

them all, then one has two options: (i) One can conclude that there was a cutoff point. In other words, God did not impute the guilt of every sin to Jesus, but passed over all sins committed after a certain point. Of course, this means that God passes over infinitely many sins, since we are assuming that some creatures continue to sin eternally into the future. This is problematic, since it results in divine justice's remaining unsatisfied eternally into the future. (ii) One can reject that guilt is action-specific, and say instead that Jesus simply paid a penalty of infinite *value* that was sufficient to satisfy divine justice with regards to all sins.

4. Does God Expunge Guilt for Future Sins? No, a person is not guilty of a sin that they have not committed, unless they allow God to impute to them the guilt which that sin would incur. (Although surely this never happens.) Therefore when someone repents, commits to following Jesus, and asks God for forgiveness, God expunges the guilt of their *past* sins, but not their future sins. Now if a Christian sins *after* this happens, God might immediately expunge the newly-incurred guilt, although 1 John 1.9 suggests that Christians must ask for forgiveness after they sin, and *forgiveness* here could refer to a legal pardon. If a Christian dies with guilt, one would expect God to eventually expunge it; perhaps God waits for the Christian to repent of whatever sins incurred that guilt. This could be immediate, or it could take time.

5. Did Jesus Satisfy Divine Justice for the Unpardonable Sin? Yes, there is no reason to think otherwise. The fact that blasphemy of the Holy Spirit is unpardonable does not entail that divine *justice* is never satisfied for it; the unpardonability means that if a person commits such blasphemy, his *guilt* for it will never be expunged. Since God eternally desires for every person to be saved, God would never refuse to save someone who genuinely repents and submits themselves to God; the only persons who would be eternally separated from God are those who would eternally choose to separate themselves from God. Therefore anyone who submits themselves to God and perseveres is not someone who has committed the unpardonable sin.

6. Is Hell the Penalty for Sin? Yes, the separation from the Father experienced in hell is the penalty for sin. And since people in hell presumably continue to sin (why would they not if they are separated from God?), they continue to incur guilt upon themselves. But since Jesus has already satisfied the demands of divine justice, God is able to expunge all of this guilt at any moment. Of course, God chooses to do this only in response to repentance, so a person remains in hell only insofar as they remain unrepentant.[3]

7. Is Physical Death the Penalty for Sin? It seems false that *every* physical death is a penalty for sin, since many physical deaths are simply accidents, and presumably many Christians who physically die don't have any remaining guilt on their deathbeds. And it seems false that *every* instance of penalization for sin includes physical death, since (according to most PSA theorists) at the end of the age, the reprobate will regain their physical bodies and *then* be penalized by being spiritually separated from God. Unless physical death and penalization for sin are mutually exclusive, there are *some* instances of one's involving the other (such as God's striking people down). In many cases, physical death is merely a *consequence* of sin, not a penalty for it. It seems that the *primary* penalty for sin is always *spiritual death* (separation from the Father).

8. What Was the Crucifixion For? If the required punishment for at least some sins (for which Jesus paid) includes physical death, then the crucifixion accomplished that portion of the required punishment. Therefore Christians who are saved from physical death as a *punishment for sin* might still experience physical death as a *consequence of sin* (or a consequence of an accident, or something else).[4] But if the required punishment for sin is *merely* spiritual death, then the crucifixion did not do anything to satisfy divine justice; it was simply the situation at which God enacted the spiritual death.

9. Is It Morally Wrong to Replicate Guilt? No, I see no reason to think that it is wrong. Guilt-replication is commonplace in legal situations. For example, if an employee harms a customer, the employee's guilt for that action is replicated to his employer. This is permissible because the employer has previously agreed to take responsibility for the actions of his employees. In the same way, Jesus, out of his love for all other humans, agrees to the replication of their guilt to him. This is why we should not be worried that God might replicate guilt to someone without their consent, as in the morally unacceptable doctrine of original guilt.[5]

10. Could We Have Paid for Our Own Sins? Perhaps, but the reason that God orchestrated the atonement is because God desires that we escape this penalty. In addition, perhaps if God were to penalize all persons individually, they would be unable to bear it, or would start to hate God for being so harsh with them. Perhaps, given human freedom, God knew that demonstrating God's love by bearing the penalty would result in a more positive response from humanity than would simply penalizing everybody. One might go further by saying that the penalty for even the smallest sin committed against a perfect God is so great as to be unbearable by a mere human, so if God penalized everyone appropriately, most or all of humanity would be annihilated.

11. Could a Mere Human Have Paid for All Humanity? Probably not. As guilt increases, the amount of separation from God needed to satisfy divine justice also increases. It seems plausible that a mere human can bear only so much penalization before they are annihilated (which would leave divine justice unsatisfied). If this is correct, it seems obvious that no mere human could survive the penalization necessary to satisfy God's justice with regard to the guilt of all humanity; that would be like attempting to withdraw $1,000,000 from a broke college student's checking account. Therefore Jesus, the *divine* human, bore the penalty that none of us could bear. This is obviously true if the guilt of humanity is infinitely quantitative. But if the guilt of humanity is only finitely quantitative, could a mere human endure the penalization if it were spread out over a long-enough duration to be bearable? Perhaps, but that would likely take millions of years. In addition, perhaps divine justice could be satisfied only by the penalization of a *perfect* sacrifice. If this is the case, then no mere human could satisfy even an ounce of divine justice, no matter how many millions of years they spent in hell. Therefore Jesus, as the only morally perfect human, was the only possible candidate for satisfying divine justice.

4. A Critique of Positive Retributive Justice

One entailment of penal substitution is that God operates according to *positive retributive justice*, which is the obligation to penalize wrongdoers simply *because* they have done wrong in the past.[6] There are three options regarding God's relationship to positive retributive justice:

(A) God is constrained to operate according to positive retributive justice.
(B) God freely chose to operate according to positive retributive justice.
(C) God does not operate according to positive retributive justice.

Option (A) seems wrong, for three reasons. First, positive retributive justice seems intuitively problematic: any sort of suffering that is not designed to benefit anyone in any way—not even as a character-builder—seems utterly pointless. Second, sins are committed partially *because of* separation from God, so if someone sins, it seems counterproductive for God to make the separation even worse, since that will probably lead to more sin. Third, separation from God is *exactly the opposite of* what God desires most for every person. It seems highly implausible that God is bound by a duty to bring about the exact opposite of what God desires most, especially when that duty makes life more difficult for everyone, with no outweighing benefits, and likely leads to more sin. Such a duty appear to be an imperfection. Surely a perfect God can reconcile people to God's self without being constrained to make them *suffer in a way that is not designed to help them in any way*.[7] So:

1. If some property would (if and only if God had it) imply that God is forced to either die or act against God's greatest desires, then that property is an imperfection.
2. Positive retributive justice is a property that would (if and only if God had it) imply that God is forced to either die or act against God's greatest desires.
3. Therefore, positive retributive justice is an imperfection.

For the same reason, option (B) also seems counterintuitive: if it was *unnecessary* for Jesus to suffer the horrendous fate of bearing trillions of sins and being separated from the Father, surely he would not have chosen to undergo such needless torment. So option (C) seems the best.[8]

One might object with the commonsense notion that criminals need to be punished for what they have done. If a criminal steals, kills, or rapes, we can't just let them get away with it. I agree that there is an intuition here. But upon closer inspection, I find this intuition to be reducible to up to five components: (i) the criminal needs to be corrected to reduce their chance of committing future crimes, (ii) the criminal needs to be (temporarily) removed from society to protect society, (iii) the criminal needs to compensate the victim for the victim's loss, (iv) the criminal and the victim should eventually be reconciled, and (v) I have a personal desire for criminals to suffer.

(i) through (iv) are commendable, but don't require retributive justice. And people don't need to compensate God for wrongdoing, since God is self-sufficient. On the other hand, (v) seems to simply be a character flaw of mine. I wouldn't want to project that onto God. So our intuition

that criminals must be punished does not entail that God uses positive retributive justice. We can accomplish (i) through (iv) without positive retributive justice. Therefore, I don't see convincing reasons to think that Jesus was penalized by God because of our sins.[9]

One might object that without positive retributive justice, there is no atonement. But why should we think that? It seems clear that the atonement, the reconciliation between God and man, was accomplished through Jesus' entire *life*, from the beginning of the incarnation to the present day. Through his birth, temptations, trials, and experiences of betrayal and martyrdom, Christ entered into the broken world of humanity and shared in our deepest sufferings.[10] But through his miracles, teachings, resurrection appearances, and present intermediary work, Christ invites *us* to enter into a Spirit-filled life and partake in the kingdom of God which he so faithfully proclaimed on earth[11]—proclamations which resulted in his execution, but for which God vindicated him by raising him from the dead. Is all this not enough to accomplish reconciliation?

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[1] Thanks to William Lane Craig for the inspiration and means to write this paper. I was brought to a much better understanding of this topic through Craig's books, podcasts, Sunday School classes, and articles. The definitions of 'guilt' and 'penalization' were adapted from Craig, *The Atonement* (Cambridge: Cambridge Elements, 2018).

[2] See Bandy, "Critiquing Calvinism".

[3] See Bandy, "Universalism".

[4] See William Lane Craig, "#683 The Relation between Adam's Sin and Death", *Reasonable Faith* (2020).

[5] See Bandy, "Original Sin".

[6] To be precise, positive retributive justice is the property—of a legal system or a judge of a legal system—of being such that persons within the system are guilty—i.e., obligated to be penalized—simply for having done wrong in the past. As noted earlier, this obligation applies to *both* the wrongdoer and the legal system (or the judge). This is why positive retributive justice ends up being a burden on God, not merely on the wrongdoer.

The belief in positive retributive justice underlies William Lane Craig's argument in "#832 Couldn't God Have Just Pardoned Us?", *Reasonable Faith* (2023). The term 'retributive justice' never explicitly appears in relation to God in this article, and this absence seems to make Craig's argument appear more plausible than it actually is.

[7] I am not arguing that people should never be punished, nor am I arguing that innocent people can be punished if doing so leads to good consequences. It seems that (i) perpetrators should be punished only insofar as the punishment contributes to their reform, (ii) victims of wrongdoing should be compensated or rewarded for their suffering, and (iii) non-perpetrators should not be punished, even if doing so would result in the best consequences. Given these three convictions, I do not see how punishing perpetrators in a way that does not lead to reform is a good thing at all.

[8] One might that object that in the absence of positive retributive justice, there is no such thing as moral responsibility. But this seems wrong. As stated in convictions (i) and (iii) in note 9 above, there is a difference in moral responsibility (and thus rightness of punishment) between perpetrators and non-perpetrators. It is not as though the absence of positive retributive justice results in wrongdoing's being ignored.

[9] Of course, Jesus still went through some of the worst physical torture imaginable, and (assuming the ending of Mark is correct) felt abandoned by God. If I knew why God decided not to comfort Jesus at this moment, I'd have a solution to the problem of divine hiddenness!

[10] This is the *identification* aspect of the atonement.

[11] This is the *moral influence* aspect of the atonement.

Original Sin

Original sin is the doctrine that all humans are in a state of sin or guilt because of Adam's first sin. The term 'original sin' is ambiguous, and so we should distinguish two distinct doctrines:

- *Original sinful nature*: all descendants of Adam (except for Jesus) have inherited a sinful nature (an intrinsic tendency to sin) from Adam, which Adam did not originally have, but acquired due to his own initial sin.[1]
- *Original guilt*: Adam's guilt (liability to or deservingness of punishment), which Adam incurred upon sinning, is automatically imputed by replication onto each of his descendants when they are conceived (except for Jesus).

1. An Argument against Original Sinful Nature[2]

If God creates each new soul individually, the origin of the sinful nature in each new soul cannot come from anything other than that soul's own first sin. If God cannot tempt (James 1:13), certainly God cannot infuse an unwitting infant with a sinful nature, for that would be far worse than tempting. But even if God did do such a thing, that would not constitute original sin, because the whole idea of original sin is that each person *inherited* their sinful nature from Adam, not that God gave it to each person individually. In the same way, if Satan somehow implanted a sinful nature into every infant soul at conception (immediately after God created that soul), that would not constitute a true *inheritance* of sin from Adam, but merely an *implantation*.

But if neither God nor Satan gives us our sinful nature, it is inexplicable how we could inherit such a nature. A sinful nature is not a physical or mental problem that can be passed down through sexual reproduction; it is a dual spiritual problem of separation from God and a tendency to sin. Such a problem could not be housed in the parents' DNA, or in any sperm or egg cells, since it is not a physical problem. Even if a sinful nature were also a physical problem that somehow transferred itself from the mother's womb to the infant's body, it could not transfer itself from the infant's body into the infant's soul—there would be no mechanism (or reason) for such a physical-to-spiritual transfer. Saying that the soul of an infant somehow includes portions of the souls of his parents also seems incoherent, for two reasons: (1) a soul is an irreducible object; it cannot be divided into parts, so as to give one part of it to a child, and (2) souls are distinct objects that cannot be coherently combined with one another, let alone by physical processes. In other words, it seems incoherent that a man physically giving his sperm to a woman would somehow automatically create a brand new soul.

Based on these objections, it seems that the doctrine of original sin, or at least original guilt, contradicts God love, God's justice, and philosophical coherence. Denying original sin is not the same as denying that everyone has sinned and is in a state of condemnation before God. Rather, denying original sin means that each person takes much greater responsibility for their own sinful nature.

2. Arguments against Original Guilt

2.1. Unjust and Unloving

Replicating guilt from one person to another without the recipient's consent is unloving and unjust to the recipient, and therefore inconsistent with God's character. Even if Adam was the perfect representative for us, and even if every human who is alive would have sinned in Adam's situation, it is still unloving and unjust for God to transfer Adam's guilt to us, since (1) we would be held guilty for sins we never committed, and (2) we never agreed to such a transfer.

Imagine two brothers, each of whom would freely steal a television from the store if they had the chance. Now imagine that their father, aware of their tendencies, sends one of them to the store. The brother at the store has a chance to steal a television, and so he freely does. Should the father punish both of the brothers, and make both of them pay the full price of the television? Clearly not. Only one of them committed the crime.

If such a punishment seems unjust, then the imputation of Adam's guilt to all humanity should seem far worse. For now a single sin of a single person is being imputed to billions of other people, including unborn infants, for thousands of years into the future. Transferring guilt to a recipient without his agreement is manifestly unloving and unjust, and it is impossible for God to be either unloving or unjust. The idea that God implants guilt in all infants at conception (or that they somehow inherit it from their parents) seems completely wrong.

2.2. Biblical Teachings

In any case, God has made it clear that, at least for ordinary humans, everyone is guilty only for their own sin, not the sin of some other person. From the context of these verses, it seems clear that they are saying that people *deserve to die* for their own sins, which is the same as saying that they are guilty:

> Parents are not to be put to death for their children, nor children put to death for their parents; each will die for their own sin. (Deut 24.16)
>
> In those days people will no longer say, "The parents have eaten sour grapes, and the children's teeth are set on edge." Instead, everyone will die for their own sin; whoever eats sour grapes—their own teeth will be set on edge. (Jer 31.29-30)

3. Arguments for Original Sinful Nature

3.1. A Perfect Life

One might argue that denying original sin opens up the possibility of someone living a perfect life. My response is that God has created a world in which everyone freely sins at some point—

which is not difficult, given that every person after Adam is born into a world with sin and born to parents with sinful natures. The believer in original sin might view such a scenario as implausible or unjust, but this scenario is certainly more plausible and just than a scenario in which every unborn infant who hasn't sinned is guilty of a sin that some other person committed.

3.2. Human Responsibility

One might argue that denying original sin eradicates human responsibility, making us naturally good people who are not in need of a savior, thus undermining the entire gospel. This objection is wrong, since the result of denying original sin seems to be the complete opposite. In the absence of original sin, everyone is *fully responsible* for their own sinful nature, because each person's sinful nature is brought about by *his own sin*, not by someone else's sin. Every person, once they sin, is *fully* in need of a savior, and therefore the Gospel remains intact. When we kneel to God and confess our sins, we can truly say, "This is *my* fault", whereas on original sin, it really isn't our fault, since our sinful nature and our guilt were inherited from Adam.

One might object that denying original sin opens up the possibility that a person can go for a long stretch without ever having sinned, in contradiction to Romans 3.23. But this can be answered by saying that people simply *don't* go for long stretches without sinning; everyone sins very early on in life. It's impossible to provide an exact age, but infants probably wouldn't even have the capacity to sin. But that is beside the point. As soon as they sin, they bring guilt and corruption upon themselves. Again, however strange this scenario might seem, surely it seems more plausible than a scenario in which a newly created soul inside the womb is guilty for someone else's sin and also corrupted because of that person's sin.

4. Arguments for Original Guilt

4.1. Vicarious Liability

One might argue that guilt is transferred between people all the time. An employer is often held liable for the actions of his employees. And, of course, Christ was punished for the sins of all men. Given these facts, it seems perfectly just for God to hold us accountable for Adam's sin.

But this analogy fails: In the above two examples (the employer and Christ), the person who was guilty *chose* to place themselves in a position in which they might take on the guilt of another. A responsible employer hires an employee with full knowledge that the employee's actions could cause the employer to be guilty. And of course, Christ willingly took our guilt upon himself. These are worlds apart from the *unwanted replication of guilt* to conceived infants that is entailed by original sin. Surely the mere "act" of being conceived in the womb cannot make you responsible for someone else, since your conception is completely out of your control.

4.2. Consequences of Sin

One might argue that all of human history since Adam has involved God's punishing everyone for Adam's sin, since God has allowed humanity to fall into corruption and disarray, and suffer terrible consequences, due to Adam's sin.

But this isn't a punishment in the legal sense of harsh treatment in response to wrongdoing; and the legal sense is the relevant sense when talking about original guilt. These are merely the natural consequences of Adam's sin. (At least they are on conservative Christianity.)

4.3. Biblical Teachings

Let's look at some verses people have used to support original guilt:

> Therefore, just as sin came into the world through one man, and death came through sin, and so death spread to all for that [ἐφ' ᾧ] all have sinned. (Rom 5.12)

This verse doesn't seem to teach original guilt. ἐφ' ᾧ ('for that') could be translated as 'because' or 'on account of which'. If it means 'because', then the passage teaches that death spread to each person because each person sinned. If it means 'on account of which', then the passage teaches that people sin because death spread to them. In neither case does it teach that we are *guilty* for Adam's sin.

> Therefore just as one man's trespass led to condemnation for all, so one man's act of righteousness leads to justification and life for all. (Rom 5.18)

Yes, one man's trespass led to condemnation for all. But someone isn't guilty automatically, merely in virtue of being a descendant of Adam. Look at the parallelism between Adam and Christ. Christ's atonement doesn't automatically make you righteous when you are born. You have to believe in Christ in order for his atonement to apply to you. Similarly, Adam's sin doesn't automatically make you guilty when are you born. You have to sin in order to be guilty. Verse 5 suggests this too, explaining how Adam's sin led to our condemnation: *everyone else has sinned too*, and thus incurred guilt from *their own* sins, not from Adam's sin.[3]

> I was brought forth in iniquity, and in sin my mother conceived me. (Ps 51.5)

I'll concede that on the surface, this verse seems to teach that David was born guilty—especially if you use translations such as the NRSV that say that David was "born guilty".

But as Jeremy Myers points out, there are multiple better interpretations of this verse. David could be referring to the fact that he was born into a sinful world, and from a sinful mother, or that he had been sinful from an early age, perhaps as early as he could remember. It could also be hyperbole or non-literal imagery—something that is used elsewhere in the Psalms. The context is

that David is in a state of intense remorse about his adultery with Bathsheba, and so it wouldn't be surprising for him to use hyperbole. (Recall when Paul says that he is "foremost among sinners".) It's far too big a stretch to think that this passage is teaching us about a universal doctrine of original guilt.[4] There's not even a hint that David is thinking of his guilt as something inherited from Adam's original sin—it sounds like he is just lamenting how sinful of a person he is, and saying how he was hopeless from the start.

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[1] This rather controversial doctrine (also called 'hereditary corruption') should be distinguished from the rather obvious view that humans readily adopt a tendency to sin based on external circumstances such as being born into a world full of suffering and broken people. Some humans may even develop problems in the womb due to trauma experienced by their parents. Thanks to Dane Rich for this distinction.

[2] This argument assumes substance dualism and the idea that each new soul is created at physical conception or sometime between conception and birth.

[3] This reasoning applies also to arguments that Rom 5.19 or 1 Cor 15.22 teach original guilt.

[4] Jeremy Myers, "Are People Born in Sin? (Psalm 51:5)" (2014), *Redeeming God*.

THE BIBLE

Presuppositionalism

Presuppositionalism is a view that includes the following seven doctrines:[1]

1. The Bible is *self-authenticating*: it "bears evidence within itself of its own divine origins".[2]
2. Our confidence about a view depends primarily on how clearly that view is taught in the Bible or can be inferred from the Bible.
3. Views not endorsed by the Bible are subject to the authority of the Bible.
4. If we encounter a tension between the Bible and other supposed facts, we must always assume that the Bible is correct.
5. We *cannot* assess the authority of the Bible from a neutral point of view, since apart from the Holy Spirit, our reasoning is too corrupted and will lead us astray.
6. We *shouldn't* try to assess the authority of the Bible without assuming the truth of the Bible, since that amounts to rebellion and placing ourselves as judge over God's Word.
7. Even our basic concepts—such as *love* and *justice*—must come from the Bible.

Presuppositionalism is to be contrasted with *evidentialism*, a methodology on which the truth-seeker attempts to neutrally examine different views and find out which one is true, regardless of whether the search leads the seeker to theism, atheism, or agnosticism.[3]

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Ⓘ Arguments for Presuppositionalism

1. The Self-Authentication of Scripture

The presuppositionalist (PST) might say that the Bible is self-authenticating—"it bears evidence within itself of its own divine origins". It gives a good explanation for the universe, as well as an accurate diagnosis of the human condition. It also encourages and fortifies its readers and imbues them with a sense of its own divinity.

But this is suspect, for four reasons. First, what is the Bible? The surviving Greek and Hebrew manuscripts of the 66 books of the Protestant canon, minus John 7.53-8.11 and Mark 16.9-20? This seems arbitrary. There are plenty of other "Bibles" that are also self-authenticating. Add in John 7.53-8.11. Or subtract Leviticus 11.46. Or use parts of the Septuagint instead of the Masoretic text. These Bibles have an equal claim to being self-authenticating.

Second, it seems that the Bible is not self-authenticating. The Bible seems to contradict itself and violate some of our deepest moral intuitions.[4] For many people, the Bible does not encourage them or imbue them with a sense of its divinity. Reading the Bible might actually be very painful, because it promises things that the reader would like to believe but does not feel justified in believing. Or it promises things that seem horrendous and immoral.

Third, what is the PST's basis of their belief that the Bible is self-authenticating? Logically, there are only three options: that belief is at least partially based on itself (which is circular), that belief is based on nothing (which is a blind assumption), or that belief is based solely on something else (which means the PST is using a non-presuppositional form of investigation).

Fourth, the Muslim, or the Hindu, or the KJV 1611 Onlyist can say the exact same thing about their scriptures. How do we fairly and rationally decide who is right? Surely not by assuming that modern non-KJV Protestant evangelicals are right and that everyone else is wrong. The way to decide is by attempting to do a neutral investigation of all these scriptures. The fact that such an investigation might be difficult is no reason to assume that one particular view is correct.

2. Transcendental Arguments

PSTs might present *transcendental arguments*, which state that knowledge, rational discussion, inductive reasoning, and logic presuppose the existence of God. But this seems wrong. Other non-God foundations can support those four things: the Tao, Brahman, an impersonal first principle, the Greek Monad, Plato's Forms, and so on.[5] Even if the foundation of reality is just some quantum physical state, how does that preclude knowledge, rational discussion, inductive reasoning, or logic? If a person exists, they can *know* that they exist and are having experiences. If two people are discussing, they can use their intuitions, evidence, and laws of logic to have a *rational* discussion. If a person touches a hot stove 100 times in a row and it hurts every time,

they can *inductively* infer that it will very probably hurt if they touch it again. Laws of logic—such as 'If A and B are true, then A is true'—are so obviously true that a person can just *see* that they are true upon examination. In *none* of these four cases is God presupposed or required.

3. Epistemic Arguments

Eric Hovind offers an epistemic argument for God, which I have formalized here:[6]

1. Our beliefs cover less than one percent of everything there is to know.
2. If (1) is true and God doesn't exist, then we could be wrong about all our beliefs.
3. If we could be wrong about all our beliefs, then we don't know anything.
4. We do know some things.
5. Therefore, God exists.

(2) seems obviously wrong. I believe that thinking occurs. I don't see how I could ever be wrong about this. Nothing I might discover in the universe could disprove the fact that thinking occurs. Indeed, it would require thinking to even comprehend a potential defeater to the idea that thinking occurs. I also believe that 1+1=2, and I am certain about it; from my perspective, there's no way I could be wrong about it, regardless of whether God exists.

(3) seems wrong. I hear my grandmother talking just outside my room. I believe that she hasn't been replaced by a Martian who sounds like her. Surely I know this, even though there's a possibility that I'm wrong about it. Mere possibility of falsehood doesn't preclude knowledge.

(4) is also questionable. Skeptics might simply deny this premise because they might not think we have what it takes to know anything—perhaps none of our beliefs are justified, as Kane Baker has stated.

4. The Judge of God

Presuppositionalists might say that it is rebellious to look at extra-biblical evidence for God's or the Bible, since in doing so one is placing oneself as the judge over God or God's Word.

I take this objection seriously. If God exists and I am doing something rebellious, then I want to know. But how *could* I know? By leaping in the dark? It is irrational to just *assume* that PS is true; no more rational than assuming that Mormonism or Islam or any other belief system is true. And so, apart from some direct, self-authenticating revelation of God, it seems there is only one way to find out whether I am being rebellious: to look at the evidence.

In addition, the judge analogy doesn't seem entirely accurate. True, a judge examines evidence pertaining to a suspect, as does the evidentialist pertaining to God. But a judge places themselves in *legal authority* over the suspect. This is not the case with the evidentialist. The evidentialist is simply trying to *find out* whether God exists. If the evidentialist honestly comes to the conclusion

that God exists, they can make a decision to either submit their life to God or rebel against God. But if they honestly come to the conclusion that God does not exist, then they aren't placing themselves as a "judge over God", because they don't think that there *is* a God. So evidentialism does not inherently involve rebellious behavior.

For evidentialists, looking honestly at the evidence is the opposite of rebellion—it is the standard for truth-seeking. It requires humility to set aside your desires and follow the evidence wherever it leads. Surely God would want us to use our brains to rationally discover God and God's love for us, rather than leaping in the dark to such conclusions. The PST might respond that I am "making God in my own image"—that I am selecting a version of God that conforms to my desires. But I don't think so. It just seems *most likely* that God would want us to be rational.

5. The Authority to Interpret Evidence

The PST might say that I am declaring that *I*—not God's Word—have the authority to interpret the evidence. I agree. How else could it be? *I* need to look at the evidence and see if it's convincing to *me*. No one else can do this for me. This doesn't mean I'm setting myself above God's Word. If the Bible *is* God's Word, then it has authority over me. But maybe God has *granted* people the authority and ability to interpret evidence. Maybe that's partially why God made people rational!

The PST might say that I am saying that the *evidence* has authority instead of God's Word. It's a little hard to understand what this means, but my guess is that they mean that I am saying that evidence can *grant justification* to belief. This seems obviously right.

The PST might say something like, "God exists, God has spoken, and the Bible is God's Word, so everything in the Bible is true, and we're obligated to believe it, since we're obligated to believe God". But this just assumes the PS and a very conservative model of biblical inspiration which I dispute in "Biblical Inspiration".

6. Disagreement among Evidentialists

The PST might point how different evidentialists look at the same evidence but come to different conclusions. I agree, but how is that an objection to evidentialism? It might just be what we're stuck with, just like how we're stuck with child hunger. Plus, two different PSTs can come to different conclusions if they're presupposing different things. The PST might respond that on evidentialism, the emphasis is on the method, whereas on presuppositionalism (PS), the emphasis is on the truth. I disagree—it seems to me that both evidentialism and PS are simply employing the method that they think is most likely to get them to the truth.

From the previous point, the PST might conclude that on evidentialism, our intuitions are unreliable. I agree that they are *often* unreliable, but that doesn't mean they are *always* unreliable. If God created us, then surely our intuitions are *sometimes* reliable.[7]

The PST might say that I don't have a good foundation for my beliefs; that my beliefs are groundless. Maybe this is right. But I don't see how PS fares any better. My beliefs are based on intuitions and perceptions. The PST's beliefs are based on assumptions and circular reasoning. That doesn't seem any better to me. In fact, it seems worse.

If I say that I can form my beliefs on the basis of intuitions, the PST might ask something like, "Says who?" or "Who gets to decide?" I'm not exactly sure what the question is asking, but I guess the answer would be that I decided it. Of course, I didn't decide it in the sense of just picking my favorite methodology and assuming that it is reliable. Rather, it just seems obvious that I can form my beliefs on the basis of intuitions and perceptions.

7. The Need for Certainty

The PST might say that PS is superior to evidentialism because evidentialists can never be certain of Christianity. The evidence might get them up to 99% certainty, but evidentialists will always have at least *some* doubt, which is terrible for Christian faith.

But this is faulty, for five reasons. First, why would the opportunity for more certainty make PS a better theory? It might be a reason to *want* PS to be true, but we must set aside what we *want* to be true and instead try to find out what *is* true.

Second, some evidentialists *might end up being certain* about Christianity, especially if they count religious experience as evidence.

Third, if the cumulative case for a view is only *fairly* good, then we *shouldn't* be certain about that view. Otherwise, our certainty would be higher than is rational.

Fourth, I don't see how PS would help get rid of doubts. Leaping in the dark would seem to make someone *more* worried that they are making an error. Obviously the PST could lock themselves in an echo chamber and brainwash themselves into certainty, but that would be an epistemic error. The PST might respond that they think in terms of *trusting God* instead of certainty. But this seems wrong. It seems that *trust* depends on *belief*. For example, if I have no belief that my friend knows about my wedding, then I shouldn't trust that he'll make it there anyhow. Similarly, if one has no belief that God exists, then one has no reason to just *trust* that the Bible is God's Word. And even if the PST doesn't think in terms of certainty, their certainty or uncertainty is *still* a psychological fact—they have *some* level of credence in Christianity.

Fifth, it seems wrong that uncertainty is terrible for Christian faith, for three reasons: (1) Although uncertainty *might* lead to giving up the faith, if that is done for honest reasons, then giving up the faith is the *rational decision*. If God exists and wants a relationship with them, then their honestly is the soil in which God might try to grow a faith that is founded on *good* reasons. (2) There seems to be something virtuous about trusting in God if you have sufficiently good evidence for God, even if you aren't *certain* about God's existence. (3) Uncertainty can drive

someone to dive into theology and philosophy, which might *strengthen* their faith and lead to greater understanding of God and the world God has created.

8. Human Reasoning

PSTs (and other Christians) sometimes argue that human reasoning is corrupt and will naturally lead away from God; therefore, we should instead simply trust in God's Word:[8]

> Trust in the LORD with all your heart and lean not on your own understanding; in all your ways submit to him, and he will make your paths straight. Do not be wise in your own eyes; fear the LORD and shun evil. (Prov 3.5-7)

Surely we should trust in God. But the PST's argument is unpersuasive against evidentialism, for four reasons. First, the argument can be applied equally well to many different views. A Muslim could say that we need to trust in Allah and not rely on our own understanding. Or pick any other religion—or just make one up—that says that we need to trust in the source of wisdom from *that* religion. The PST's argument provides no reason to prefer presuppositionalism over any other view that claims to be the source of understanding.

Second, there are obvious cases where we *can* rely on our own understanding: I rely on my own understanding in believing mathematical laws such as 2+2=4, and logical laws such as $p \cdot q \vdash p$, or abductive facts such as that the round-earth theory is more probable than the flat-earth theory based on the evidence. In these cases, there is no need to "trust in God" to give us the answers, other than believing that God has given *us* a way of finding the answers, by creating us with minds capable of figuring out the answers on our own, even if we aren't always 100% reliable. It's clear that the author of Proverbs 3.5-7 did not have the above three cases in mind. I do not think that the author was arguing for presuppositionalism over evidentialism either. It seems he was offering the same sorts of teachings that Jesus offered in the sermon on the mount: to lead a life of humility, trusting God to provide for us, trusting God to do what's best when we can't figure everything out, submitting all our cares and desires to God, and so on; without nullifying the need for us to act and think for ourselves—e.g., to gather food to survive, to share the Gospel with people, to be ready with a defense of the Gospel when challenged, to try to restore broken relationships, to try to help those in need, to investigate the truth in various matters, and so on.

Third, the PST needs to be more specific than simply asserting that human reasoning is corrupt. Human reasoning is a set of inferences. Which inferences is the PST disputing? Modus ponens? Double negation? Induction? Bayes' theorem? The PST takes inferences such as these for granted every day, and such inferences are required to do theology well and to honestly seek the truth. Or does the PST dispute such inferences only when they are used in an argument against their version of Christianity? That would be a double standard to the extreme.

Fourth, the PST would not want to say that *all* human inferences are unreliable. If that were true, the objector would have no justification for any of their inferences. They wouldn't be able to

infer from "I see an apple" to "an apple exists", or from "I feel God's presence when I read the Bible" to "God exists". They wouldn't even be able to trust their own argument that we should trust in God's Word.[9]

(II) Arguments against Presuppositionalism

1. Leaping in the Dark

Instead of encouraging an honest search for the truth, PS tells us to *assume* that the Bible is true. This is leaping in the dark, since we haven't been given any *prior reasons* to think that the Bible is true. Can we fairly *assess* the Bible? Or must we leap blindly into circular reasoning?[10] After all, PS is one view among thousands. There are hundreds of other religions. There are hundreds of other versions of Christianity. If we can't try to neutrally assess any of these, then *anything goes*. If we can assume that PS is true because PS says it is true, then we can assume that Islam is true because Islam says it is true. There is no relevant difference.

And why choose the Protestant canon?[11] Why not include the Catholic books? Or the Greek Orthodox books? What about the manuscript discrepancies? The differences between the Septuagint and the Masoretic Text? The presuppositionalist (PST) cannot appeal to evidence here, since that would be encouraging the objector to reason without assuming the truth of the Bible, which according to PS is both futile and rebellious.[12] The consistent PST is stuck with assuming one extraordinarily specific view out of the vast plethora of available views.

The PST might respond that beginning with the truth of the Bible is the *only* way to proceed. Apart from God, man's mind and heart are corrupted and so do not have the capacity to reason toward the truth. This corruption is the *noetic effect of sin* (see 1 Cor 2.14).[13] But this response fails, for five reasons. First, it assumes that PS is correct, once again leaping in the dark. Second, it gets us *nowhere near PS*, since there are hundreds of other theistic views that can say that belief in *their* God is necessary to reason toward the truth.

Third, it seems implausible to think that a perfectly rational and intelligent God would make it so that the only way to find the truth is to leap in the dark. The PST might respond that God wants us to trust in God rather than leaning on our own understanding. I agree, but surely we don't need to leap in the dark to trust in God. Maybe we can find strong *evidence* for God, or we can be attentive to the witness of the Holy Spirit, and then trust in God on the basis of that revelation. And if God wants a relationship with us, perhaps God would simply *overcome* the noetic effects of sin so that people have a real shot at reasoning to the truth.

Fourth, the Bible itself teaches that "since the creation of the world God's invisible qualities … have been clearly seen, being understood from what has been made, so that people are without excuse" (Rom 1.20). So people *can* see extra-biblical evidence without assuming the truth of PS.

Fifth, people report converting to Christianity at least partially on the basis of evidence. Forty-seven people who attended the 1993 Craig-Zindler debate "indicated that they had become believers" after attending.[14] Josh McDowell reported that evidence played a role in his conversion.[15] This phenomenon is reported all the time on the internet. The PST might state that it is *really* because of the Holy Spirit that people convert, not because of evidence. But it seems wholly implausible and disingenuous to think that evidence played *zero* role in all of the reported cases. After all, these converts went on to report that evidence *did* play a role! It seems deceptive for the Holy Spirit to convert someone, only to let them falsely think that evidence played a role.

The PST might respond that PS is best because it all "hangs together", whereas other views have serious internal problems. But anyone can say this about their own view. The Muslim can say that Islam "hangs together" and that all other views have serious internal problems.[16] If we want to properly *assess* all these claims, we need to do so using basic, logical, and consistent criteria.

The PST might respond that they ultimately believe in PS because of either basic intuitions that PS is true or direct revelation from God that PS is true. But in either case they have abandoned PS. For in either case they are denying doctrine (4) by assessing the truth of the Bible via extra-biblical means. The consistent PST must *assume* the truth of the Bible rather than *infer* it from their basic intuitions or their experience of a divine revelation.

The PST might respond that *everyone* has presuppositions, and so there's nothing wrong with presupposing inerrancy. But this seems wrong. Some people might *not* have presuppositions—perhaps *every one* of their beliefs is ultimately based on an intuition or perception.[17]

And even if I do have presuppositions, it seems that presuppositionalism still does worse in two respects. First, PS assumes *far more* than I do. Perhaps I assume basic things about how my intuitions and perceptions are reliable. PS assumes a gigantic religious framework with a very specific selection of religious texts. Second, PS assumes things *far more strongly* than I do. I assume things tentatively, willing to give them up if the evidence stacks against them. PS assumes things as absolute, obligatory truth. The latter seems more likely to lead to error.

2. Evacuation of Basic Concepts

Affirming doctrine (6)—that our basic concepts must come from the Bible—results in certain concepts' being evacuated of their value. Consider the concept of *love*. Part of an intuitive, commonsense definition of 'to love someone' is 'to desire someone's well-being'. And if one loves a person and is easily able to provide opportunities for that person's wellbeing, then one will naturally provide such opportunities. This is an intuitive, commonsense inference.

Now suppose that a PST states that God loves everyone, but then says things that imply that God does *not* seek the flourishing and fulfillment of some people. Some people are killed by a debilitating, painful disease when they are young. If they don't believe in God before that, God

ceases all efforts to pursue their wellbeing, leaving them to eternal conscious torment. Moreover, God set up the world knowing that this would happen all along, so it was easily preventable.

This leaves me scratching my head. The PST said that God loves everyone, but then described something that looks as far away from love as possible. The PST might respond that God *does* desire a relationship with them, but justice requires that God punish them for eternity. But this is odd. For while they were living, God could freely pursue them. Why did that suddenly change after the disease destroyed them? Biological death is an arbitrary stopping point for God's love. Once again, the PST's version of *love* doesn't look like love at all.

Similarly, part of a commonsense definition of *to act justly* is "to not punish one for another person's sin, unless one agrees to bear the guilt of that other person". The PST will say that God is just, but then say that God replicated the guilt of Adam onto every other human without their consent. So we are punishable for something that happened before any of us ever existed. This empties *justice* of its value. Again, a basic concept has been rendered unrecognizable. It seems dishonest to tell someone that "God loves everyone" and "God is just to everyone" when you *know* that they use the commonsense definitions of those terms and so the message they receive is completely different from what you actually mean.[18]

The PST might respond that I am imposing my own values on the Word of God. But this begs the question by assuming that the Bible is the Word of God. Plus, I don't see how what I am doing is *imposing*. It is part of seeking the truth. I look at the evidence to figure out which view is most likely. That evidence includes not only empirical data but also my most basic moral intuitions. I am open to these intuitions' being wrong, but I would need to see *evidence* that they are wrong.

3. Ad Hominem

If an atheist presents an argument against PS, a PST might dismiss the argument because they think the atheist has a corrupt mind or lacks a foundation for reasoning. But this is fallacious, because it dismisses the argument without engaging with it. If the PST has agreed to a fair discussion, they should engage directly with their interlocutor's arguments. The PST might respond that *ad hominem* is not always fallacious. For example, if you meet someone who's reported to *always* lie, then you can reject anything they say. I am not sure about this, but even if it's correct, my point still stands: to be charitable, you should still *engage* with what others say.

4. The Pointlessness of Evangelism

If it is impossible to find the truth without first assuming the truth of the Bible, how does *anyone* become a Christian? The corrupt man cannot even make the first step of *assuming* the truth of the Bible, at least apart from a direct work of the Holy Spirit. That means attempting to persuade an unbeliever is always ineffective. This can be shown logically: if a direct work of the Holy Spirit is *always necessary* to reason to the truth, then persuasive attempts are *never sufficient*. The PST might respond, "Of course—only God can make them repent". But I'm not talking about

repentance—I'm talking about getting them to *reason to the truth*. On PST, this is *impossible*. Not even the best argument can accomplish this. The PST might respond that they do apologetics because they are commanded to, or because it glorifies God, or because it is a good thing to defend their view. But again, this is irrelevant. My objection is very specific: PS *implies* that apologetics is always ineffective.

5. Circular Arguments

PSTs might present circular arguments such as the following:

1. The Bible is God's inerrant Word.
2. [Other premises.]
3. Therefore, the Bible is God's inerrant Word.

As I point out in "Circularity", no one should be persuaded by such an argument. The conclusion is identical with the first premise, so the argument does little more than state the conclusion twice.

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[1] Thanks to Joseph Daughtry for making me aware of the distinction between evidentialism as a philosophical method and evidentialism as a version of Christian apologetics. Thanks also to Joseph for extensive discussions on the contents of this essay. Prominent presuppositionalists include Cornelius van Til, Greg Bahnsen, John Frame, Vern Poythress, and Scott Oliphint.

[2] Michael Kruger, "What Do We Mean When We Say the Bible is 'Self-Authenticating'?", *Canon Fodder* (2015). Thanks to Joseph Daughtry for making me aware of this concept.

[3] This is to be distinguished from evidentialism as a form of Christian apologetics.

[4] See Bandy, "Biblical Inspiration" and "Biblical Inerrancy".

[5] Thanks to Richard Howe for these insights.

[6] Eric Hovind, "Everyone knows God exists! (Here is why…)🤯🤯".

[7] Of course, I'm not going to assume that God created us if I'm investigating whether God created us; that would be circular.

[8] See e.g., Gregory Willis, "Election", in R. Albert Mohler ed., *Confessing the Faith* (SBTS Press, 2016), 35.

[9] Namely:

1. Man is fallen.
2. If man is fallen, we cannot trust our own reasoning.
3. If we cannot trust our own reasoning, we should trust in God's Word.
4. Therefore, we should trust in God's Word.

[10] According to John Frame, *Theology in Three Dimensions* (R&R Publishing, 2017), 60,

> Apologists have sometimes argued that we should not appeal to Scripture, since Scripture is precisely what is in question. If we appeal to Scripture to prove the truth of Scripture, we would be engaging in circular argument. So it is [supposedly] better … to argue … from fact alone (meaning extrabiblical facts), and from those facts to derive conclusions about the truth of Scripture.
>
> But there are fatal confusions in this line of reasoning. First, what do we mean by "fact"? … If the Bible is God's word and therefore inerrant, then isn't its inerrancy a fact?

But this is mistaken. Non-presuppositional apologists do *not* argue that we should avoid appealing to the Bible in an argument. What they argue is that we shouldn't use the Bible's inspiration and inerrancy as an *unsupported premise* in an argument. Why not? Because—obviously—anyone who doesn't already accept the Bible's inspiration and inerrancy will reject such an unsupported premise, and the argument will become useless.

And so more generally, non-presuppositional apologists do *not* say that we need to argue "from fact alone". They simply say that we need to avoid using facts that the non-Christian will reject on the spot if we simply *assert* them. Instead, we need to use logic and evidence to craft a compelling *rational case* to lead the non-Christian to accept Christian doctrines. This evidence can be historical, mental, moral, scientific, or *even biblical*, as long as the Bible is not assumed to be inspired and inerrant. For example, one could argue for Jesus's resurrection by treating the Gospels and 1 Corinthians as historical sources that are *at least mostly reliable*. Jesus's resurrection could then be used as a *premise* in an argument for inspiration and inerrancy.

[11] See Bandy, "The Gospels" and Bart Ehrman, *Misquoting Jesus* (HarperOne, 2007).

[12] The same goes if the PST says that Christians are more virtuous than others; that appeals to extra-biblical evidence.

[13] According to Simon Kistemaker (in a review of Stephen T. Davis, *The Debate About the Bible, Inerrancy versus Infallibility*), "man's reason has been affected by sin. And because of sin, man's reason cannot be trusted as an infallible guide. Furthermore, one simply cannot place human reason above the authority of the Bible". I'm not sure why Kistemaker thinks that our reasoning processes have been affected by sin. But even if our reason is not infallible, it might be *semi-reliable*—and one who is unconvinced about divine revelation will probably think that their reasoning is simply the *best they can do*. And even if atheism turns out to be true, they can conclude that their reasoning powers evolved via mostly predictable physical processes.

[14] See William Lane Craig vs. Frank Zindler (1993).

[15] Josh McDowell, *Evidence that Demands a Verdict* (Thomas Nelson, 2017).

[16] Plus, it is no surprise that someone who leaps blindly into a view, training themselves to think only in terms of its truth, and subjecting their reasoning to its authority, would end up thinking that their beliefs all "hang together".

[17] One's senses and intuitions might *also* be the reason that one believes that those senses and intuitions are reliable. For example, I have a basic intuition that some of my basic intuitions and senses are generally reliable.

[18] The same goes if the PST states that Christians are more virtuous than everyone else, if what they mean by *virtuous* isn't the commonsense meaning (being kind, generous, honest, etc.) but something that requires being a Christian.

Biblical Inspiration

The evangelical doctrine of *biblical inspiration* is the doctrine that God has inspired the words of original manuscripts of the sixty-six books of the Protestant canon (hereafter the *autographs*).[1] Biblical inspiration has five properties: (1) *Active*—inspiration is an intentional act of God,[2] not a merely passive process in which people who encounter God become inspired to write religious texts. (2) *Textual*—inspiration applies to the *texts*, not necessarily the authors. (3) *Verbal*—God inspired the very *words* of the autographs, not merely the general themes. (4) *Plenary*—it applies to *every* word of the autographs. (5) *Confluent*—it involves *both* a divine author and human author working together to produce the text. In this essay, I consider arguments for and against this evangelical doctrine of biblical inspiration, hereafter simply *inspiration*.[3]

1. Arguments for Inspiration

1.1. Presuppositionalism

Presuppositional arguments for inspiration are arguments that presuppose the inspiration, truth, and authority of the autographs. For anyone who wants to look at the evidence and figure out whether inspiration is true, presuppositional arguments are entirely unhelpful. After all, if someone is undecided about inspiration, then merely asserting or assuming the truth of inspiration will not be effective at all. I address presuppositionalism in "Presuppositionalism".

1.2. Unified Message

One might argue that the Bible, though written by forty human authors over the course of 1,500 years, presents a unified message, and therefore must be divinely inspired. But this is unpersuasive, for three reasons. First, even if God actively inspired the *general message* of the Bible, it does not follow that every *word* of the autographs was inspired. Second, given that the canon was *recognized by humans*, and that unification was surely an important criterion for canonicity, it is unclear why one should infer that the unified message was the result of divine inspiration as opposed to merely human selection. Third, it is not clear that the Bible presents a unified message, given intense and long-standing controversies on virtually every theological issue.

1.3. Benevolent God

One might argue that a God who desires to reveal God's self to humans would actively inspire scriptures for humans and then order the world such that the scriptures that the Protestants ended up with are the only inspired ones. But this assumes very specific intentions on behalf of God. Perhaps such a God would find it preferable to provide only passively inspired texts, such as the writings of those who have mystical experiences as a result of spiritual discipline or direct revelation. Perhaps God would find it preferable to raise Jesus from the dead and passively allow the early Christians to compose religious texts. Perhaps God would find it preferable to "speak

through" religious texts rather than micromanage every word. We need an argument that the *evangelical Protestant version* of inspiration is true rather than all the other versions.

1.4. The Development of the Canon

There are no known attempts to recognize a NT canon until around 130 CE, when Marcion constructed a canon that included only about 9 NT books, and added the *Gospel of Marcion* and the *Epistle to the Laodiceans*. After that came the Muratorian fragment around 170 CE, which included at most 23 NT books, and added the *Apocalypse of Peter* and the *Book of Wisdom*. A complete list of the 27 NT books did not appear until 367 CE in Athanasius's 39th Festal Letter, which included only 22 OT books and added the *Book of Baruch* and the *Letter of Jeremiah*.

One might argue that since the canon ended up with the books that we have, we can conclude that they ended up the way God wanted them to. But this is unpersuasive, for three reasons. First, the inference is false. Just because something is a certain way doesn't mean that God exists and wanted it to be that way. Second, we can explain the development of the canon through historical means, without appealing to divine action. Adding theological beliefs *on top of* this web of historical beliefs complicates one's theory and so lowers its probability, and so should not be done without sufficient evidence. Third, ever since 382 CE, the largest Christian denomination, Roman Catholicism (1.3 billion adherents), has affirmed six books that are *not* in the Protestant canon.[4] So the "what Christians ended up with" argument provides more evidence for the Catholic canon than the Protestant canon. Given that evangelicals reject the Catholic canon, they already implicitly don't accept the "what Christians ended up with" argument.

1.5. Jesus and the Apostles on the Old Testament

1. Jesus and the apostles said that the Law and Scriptures were inspired.
2. If Jesus and the apostles said that the Law and Scriptures were inspired,
   then Jesus and the apostles affirmed that the OT Writings were inspired.
3. If Jesus and the apostles affirmed that the OT Writings were inspired,
   then the OT Writings were inspired.
4. Therefore, the OT Writings were inspired.

(1) can be supported by multiple alleged sayings of Jesus: "Scripture cannot be broken" (Jn 10.35). "Not an iota, not a dot, will pass away from the Law until all is accomplished" (Mt 5.18). "Man shall not live by bread alone, but by every word that comes from the mouth of God" (Mt 4.4). "You are wrong, because you know neither the Scriptures nor the power of God" (Mt 22.29). One might argue that the early Christians would *not* have been motivated to invent these sayings of Jesus, since the early Christians were under persecution by the Jews. On the other hand, one might argue that early Christians *were* motivated to plant Jesus firmly within Judaism, to express that Jesus was the true Jewish Messiah. In the absence of strong evidence, it is not obvious that all these sayings go back to Jesus. As another note, it's not clear that Jesus is affirming the *evangelical* doctrine of inspiration about the Law and Scriptures.

(2) is not obvious, since we have no record of Jesus saying that all the OT Writings were what he meant by the "Law and Scriptures". There are no records of the entire set of OT Writings' being accepted as inspired until at least 300 CE. We can get partway there, however, by recognizing that Jesus cited or referred to 14 of the 39 OT books, and that the NT cites 34 of the 39 OT books. We know that Jews accepted the Torah as Scripture. But Jews in the time of Jesus didn't have the finalized canon of books like we do today.[5]

(3) is definitely true according to the traditional view of the incarnation on which Jesus held all and only true beliefs. But if, in the incarnation, the Logos truly gave up his divine properties and was plunged into the body of a first-century Jew, then it would be no surprise if he largely went along with the religious beliefs of his day, even if those beliefs were incorrect. In "Jesus the Apocalyptic Prophet", I argue that Jesus and Paul were incorrect about when the end of the ages would arrive.

1.6. The Apostles on the New Testament

5. The apostles affirmed that the NT autographs were inspired.
6. If the apostles affirmed that the NT autographs were inspired, then the NT autographs were inspired.
7. Therefore, the NT autographs were inspired.

(5) is not obvious, since the apostles never refer to the NT as a whole. We can get partway there, however, by examining some passages. A disputed letter of Paul quotes an alleged saying of Jesus as Scripture: "For the Scripture says, … 'The laborer deserves his wages'" (1 Tim 5.18, Lk 10.7). A highly disputed letter of Peter refers to Paul's letters as Scripture: "Paul wrote to you according to the wisdom given him, speaking of this as he does in all his letters. There are some things in them hard to understand, which the ignorant and unstable twist to their own destruction, as they do the other scriptures" (2 Pt 3.15-16). The same letter values apostolic testimony equally with prophetic testimony: "Remember the words spoken in the past by the holy prophets, and the commandment of the Lord and Savior spoken through your apostles" (2 Pt 3.2). Paul considered 1 Corinthians to be authoritative: "Anyone who claims to be a prophet … must acknowledge that what I am writing to you is a command of the Lord" (1 Cor 14.37). John the Revelator considered his own book to be authoritative: "Blessed is the one who reads aloud the words of this prophecy" (Rev 1.3). But as noted, the authorship—and so apostolicity—of 1 Timothy, 2 Peter, and Revelation is highly disputed.

So although the apostles very likely thought that most or all of the apostolic writings were inspired, this does not get us all the way to (5). In addition, we would need further evidence to think that the apostles viewed the NT as inspired in the evangelical sense defined above.

(6) depends on the reliability of Jesus and apostles. If Jesus was God's Son and the apostles stuck to Jesus's message, then (6) is obvious. But *was* Jesus God's Son? *Did* the apostles stick to Jesus's message? After all, Jesus never said that future letters to churches would be inspired.

2. Arguments against Inspiration

2.1. The Determinism Problem

1. If inspiration is true, then either
   (i) God determined every word of the autographs,
   (ii) God Molinistically guaranteed some words of the autographs, or
   (iii) God got lucky with some words of the autographs.
2. God did not determine every word of the autographs.
3. God did not Molinistically guarantee some words of the autographs.
4. God did not get lucky with some words of the autographs.
5. Therefore, inspiration is false.

(1) Inspiration is *verbal* and *active*: God *actively* inspires the *individual words* of the autographs. If this is true, then God intends for certain individual words in every case. If that's right, then God must have some way of bringing about those intended words. And so either (i) God determined every word of the autographs, (ii) God merely guaranteed them without determining them, or (iii) God didn't even guarantee them but just got lucky. The only way to guarantee something ahead of time without determining it is to know that it would indeterministically result from a scenario that you can set—this is the Molinistic model.[6]

(2) If God determined what the autographs would say, then the human authors had no freedom; they couldn't have refrained from writing the exact words they wrote. Was it really true that, out of the 783,000 words in the autographs, the authors were unable to write a *single* word differently? When Paul told the Roman church to greet twenty-eight people (Rom 16.3-15), was he unable to word those greetings *any* differently? This seems implausible.

(3) As I argue in "Critiquing Molinism", it seems wrong that God can Molinistically guarantee anything—both due to the influence problem and the grounding objection.

(4) The idea that God got lucky seems implausible. Was the Word of God a matter of luck? If it was important to God that we receive God's exact words, surely God would *guarantee* that we receive God's exact words—God would take no chances. But if God *did* take chances, then it is improbable that all the words left up to chance turned out exactly how God wanted.

To illustrate the problem, suppose that God determined *half* of the words (which seems *far* too much, but I'll grant it) and left the rest up to chance. Suppose further that each word which God left up to chance had a 99% chance of being the word God wanted it to be (again, this seems *far* too high a probability, but I'll grant it). The chance of *all* 391,568 words turning out exactly how God wanted, even in this extremely optimistic case, is about 1 in 10^{1710}. So it is hopeless to think that God just got lucky.

2.2. Authorship

The majority of scholars hold that 2 Peter was not written by the apostle Peter. Below I provide an incomplete bibliography by Michael Gilmour—who provides ten reasons the forgery of 2 Peter is the "consensus view" among scholars:[7]

- W. G. Kümmel, *Introduction to the New Testament*, trans. H. C. Kee (… Nashville, 1975), 430-34.
- J. H. Elliott, "Peter, Second Epistle of", in *Anchor Bible Dictionary*, ed. D. N. Freedman, et al. (New York, 1992), 5:282-87.
- "The characteristics of pseudonymity are particularly clear" [my translation]. A. Lindemann, *Paulus im ältesten Christentum: Das Bild des Apostels und die Rezeption der paulinischen Theologie in der frühchristlichen Literatur bis Marcion* (BHT 58; Tübingen, 1979), 91; supported by reference to 2 Pet 1.16-18 and 3.1.
- "No document included in the NT gives such thorough evidence of its pseudonymity as does 2 Peter. The arguments against authenticity are overwhelming". D. G. Meade, *Pseudonymity and Canon: An Investigation into the Relationship of Authorship and Authority in Jewish and Earliest Christian Tradition* (Grand Rapids, 1986), 179.
- "The pseudonymity of II Pet is more certain than that of any other NT work". Raymond Brown, *An Introduction to the New Testament* (ABRL: New York, 1997), 767.
- "Only a few recent discussions of the work still dissent [to the idea that 2 Peter is pseudepigraphal]". Richard Bauckham, "2 Peter", in *Dictionary of the Later New Testament & Its Developments*, ed. R. P. Martin and P. H. Davids (Downers Grove: Illinois, 1997), 924.[8]

> (1) … It is beyond dispute that some literary relationship exists between [2 Peter and Jude] and most commentators conclude that Peter is the borrower. A date for Jude is as difficult to determine as it is for 2 Peter; generally it is thought to have been written after 70 C.E. which, if true, would put 2 Peter to a period after Peter's death (which was, according to tradition, in the mid 60s C.E.). It may also be important to ask whether a 'pillar' in the early church would make use of Jude who was not an apostle. … (2) Connections to 1 Peter may or may not be relevant. Differences in style between 1 and 2 Peter suggest that these two documents were written by different authors. … (3) Reference to Paul's letters as Scripture may point to a later period of the church's history as also the reference to the apostles as long in the past (3:2, 4). This speaks against a time of writing when many of them were still living. (4) There is a conspicuous emphasis on Peter-as-author which, it has been argued, indicates efforts to hide a forgery … (5) The author seems at home in a Hellenistic religious and philosophical context; this is far removed from the Peter known from the Gospels. (6) There was a wide tradition of pseudonymous writings using Peter's name meaning that it would not be unusual to understand 2 Peter as another example of this (even if it is earlier in date than the others). (7) A concern with proper interpretation of Scripture and a high regard for apostolic tradition suggests greater similarity with the emerging catholicism of the second century than with the young faith evidenced by the earliest NT writings. (8) Second Peter is poorly attested in the second century … (9) The church was reluctant to accept this document into its canon—a fact that speaks against apostolic authorship. (10) And perhaps the most significant argument is that of genre. Second Peter has been identified as a testament, a farewell discourse. In many instances such literature is clearly pseudonymous in nature.[9]

In addition, Peter was a peasant fisherman in rural Galilee who spoke Aramaic. He was almost certainly illiterate. Only the upper-class elite in that region could read and write. First and Second Peter, however, are well-crafted letters written in highly literate Greek, using Greek idioms and quoting the Septuagint, the Greek translation of the Old Testament that Peter almost certainly would not have been familiar with, let alone comfortable with. Where would Peter have gotten the time or money to spend years in school learning how to write words, sentences, and paragraphs in Greek, let alone two entire letters? There weren't public schools around for adults to go learn advanced Greek, and "there's no evidence of people learning literacy after they were children in the ancient world".[10]

One might object that Peter dictated his letter in Aramaic, and a secretary wrote it down in Greek. But there is zero evidence of this sort of thing ever happening in the ancient world—let alone where the secretary edited the result to be fluent and idiomatic. By contrast, there is a plethora of examples of ancient writings being *forged*—including Christian ones (think of all the non-canonical Christian books). It was quite common in early Christianity for Christians to forge books in the name of Peter.[11] The only concrete evidence that 2 Peter was written by Peter is that it claims to have been written by Peter. But apart from that, it seems that all the evidence points towards the book's forgery. This casts doubt on the view that 2 Peter was divinely inspired (in the evangelical sense), since surely God would not deceive us by including forged books—that falsely claim to be authentic!—in God's Word.

The same goes for the other disputed books: Ephesians, Colossians, 2 Thessalonians, 1-2 Timothy, Titus, 1 Peter, 1-3 John, James, and Jude, although the evidence for the forgery of these books is less than that concerning 2 Peter. Note that the two main passages affirming inspiration, 2 Tim 3.16 and 2 Pet 1.21, are from disputed books.[12] As a separate point, many early Christians (including Athanasius, Cyril, Gregory Nazianzen, and Augustine) thought that Hebrews was written by *Paul*, and it appears that this was the reason that Hebrews was eventually accepted into the canon.[13] If that's true, then an epistle was granted canonicity based on an error.

2.3. Abhorrent Divine Acts

> There was a famine for three successive years; so David sought the face of the LORD. The LORD said, 'It is on account of Saul and his blood-stained house; it is because he put the Gibeonites to death.' … The king summoned the Gibeonites and spoke to them. … 'What do you want me to do for you?' David asked. They answered the king, 'As for the man who destroyed us …, let seven of his male descendants be given to us to be killed and their bodies exposed before the LORD' … The king took Armoni and Mephibosheth… together with the five sons of Saul's daughter Merab… He handed them over to the Gibeonites, who killed them and exposed their bodies on a hill before the LORD. … After that, God answered prayer in behalf of the land. (2 Sam 21.1-4)[14]

So according to 2 Samuel, God brings a famine on David's kingdom because of the deeds of Saul, who had *already* died and had been defeated by his enemies. Then, as far as we can tell, God stands back and watches as David hands over seven innocent people—who were merely children during the time of Saul's deeds[15]—to be slaughtered.

There are four serious problems with this: (1) What was the point of God's bringing the famine? How did that help anyone or anything? If someone was hurt and needed to be repaid, why wouldn't God help them instead of bringing a famine? It seems that God's bringing the famine was just adding insult to injury. Imagine that you are running a successful farm, when suddenly all of your crops start dying. When you pray about it, God tells you that God is killing all of your

crops because the previous owner of the farm, who is long since dead, was a murderer. This is unthinkable, yet it is exactly what 2 Sam 21 describes.

(2) Saul was already dead. He had been defeated by his enemies and then had killed himself (1 Sam 31.1-6). Surely this was all the punishment that was needed.

(3) It is clearly wrong to punish *David* and his kingdom for something *Saul* had done. One cannot respond that "Everyone is a sinner, so everyone is guilty", because in the passage, God specifically says that the famine is *because* Saul put the Gibeonites to death (2 Sam 21.1).

(4) Either God condoned the slaughter of Saul's sons, or God did not. If God condoned the slaughter of Saul's sons, this calls into question God's character—God was *okay* with seven men being vengefully slaughtered because of what their father had done? It also creates a contradiction. In other parts of the Bible, God made it absolutely clear that everyone should die for their own sin, not the sin of their relatives:

- Parents are not to be put to death for their children, nor children put to death for their parents; each will die for their own sin (Deut 24.16).
- In those days people will no longer say, "The parents have eaten sour grapes, and the children's teeth are set on edge." Instead, everyone will die for their own sin; whoever eats sour grapes—their own teeth will be set on edge (Jer 31.29-30).

This is a clearly virtuous principle, which the Bible itself teaches. The evangelical cannot say that God changed God's mind between Deuteronomy and 2 Samuel (and then changed it back for Jeremiah), since the evangelical believes that "God is not man, that he should lie, or a son of man, that he should change his mind" (Num 23.19). So God did not condone the slaughter.

But if God did *not* condone the slaughter of Saul's sons, then why doesn't 2 Samuel say that God did anything about it? It wasn't as if they were in a period of divine inactivity—God had just sent *three years of famine* and spoken *directly* to David. Surely, while informing David what the "problem" was, God could have added the most minimal suggestion: "Don't hand over Saul's sons to be slaughtered. They're innocent". But this is not recorded. The passage gives us no indication that God was bothered in the least by what happened. Instead, it implies that God *accepted* the slaughter as an appropriate sacrifice (2 Sam 21.14).

Clearly, the God portrayed in 2 Sam 21 is bloodthirsty, willing to punish people for the sins of others, and appeased by the slaughter of innocent people. This is a God that clashes with both our deepest moral intuitions and most of the rest of the Bible. What should we conclude? Perhaps that 2 Sam 21 informs us what certain ancient Jews thought God was like, not what God is *actually* like, if God exists. This is powerful evidence against inspiration. *Surely* God would not include false and abhorrent depictions of God's self in *God's own Word*.

The Bible also depicts God telling Israelites that they can capture wives from their enemies (Deut 21.10-12) and commanding Israelites to slaughter men and women, most of whom apparently had nothing to do with the reason for God's anger (Num 31.17). Again, these passages seem to depict an ancient Jewish conception of a heavy-handed war God.

One might object that God can do whatever he wants because he is God—it is God who decides what is right and wrong. But then we lose our grasp on any sense of morality and goodness. If we *say* that God is good, just, perfect, loving, etc., but we *really mean* that God is occasionally bloodthirsty, willing to punish people for the sins of others, and appeased by the slaughter of innocent people, then we have no assurance about much of anything. Maybe God will decide that it's better to break God's promises and just kill everyone to appease God's bloodthirstiness. My point is that if we allow for such extreme deviations in God's behavior, then we fall into radical skepticism about morality and about God's character.

One might acknowledge this problem, but since they are committed to inspiration, they *cling* to their view, determined to hold out until either inspiration is *proven false* or someone comes along with a solution. But surely this is one of the worst ways to seek the truth. If all the data stacks *against* inspiration, then we should stop believing in it. Otherwise we are not seeking the truth but merely sticking with what is comfortable.

2.4. Manuscript Tradition

We do not have the original manuscripts of the Bible, and in many places, we do not know what the originals said. Bart Ehrman has stated, "Given that [God] didn't preserve the words, the conclusion must be that he hadn't gone to the trouble of inspiring them".[16] This seems right—although it might not be much "trouble" for God to inspire specific words, it would be pointless to do so if God was going to let the original words become uncertain. See "The Gospels".

2.5. Contradictions and Falsehoods

If there are contradictions in the Bible, then there are falsehoods. Evangelicals might argue that if there were falsehoods in the Bible, then God would be deceptive in his Word. See "Biblical Inerrancy" and "Jesus the Apocalyptic Prophet" for discussion.

2.6. Complexity

Everyone agrees that the Bible had human authors, and that we can go back through history and show how the canon developed. To add *on top of* those beliefs a complex web of theological beliefs—commitments to divine action of inspiring Scripture over the course of 1500 years, and then guiding the early church to accept only the inspired books—makes one's theory a lot more complex and so less probable.

The problem is heightened when we tie in the arguments above. Accepting some sort of mysterious or unknown solution to the determinism problem—or going with Molinism and all the complexities it entails—as well as mysterious or unknown interpretations of every problematic passage, *and* committing to the idea that the non-original Greek and Hebrew copies of manuscripts we use are all inspired word-for-word—minus John 7.53-8.11, Mark 16.9-20, and every other late addition and uncertain word—makes the complexity problem enormously worse.

3. Alternative Models of Biblical Inspiration

If one thinks that the case against inspiration is stronger than the case for it, one might adopt an alternative model of inspiration. One such model that appears to be immune to the arguments against evangelical inspiration is simply the view that *God often speaks to humans through at least some of the Bible*.[17] It doesn't say that God *always* speaks to humans through the Bible, or that *all* of the Bible is inspired. It also doesn't say that God decided or even guided what the authors would write. It simply says that the Bible is a means through which God has chosen to communicate to humanity.

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[1] I use the term *NT autographs* to refer to the original manuscripts of each of the 27 New Testament books and *OT writings* to refer to the manuscripts of the 39 Protestant Old Testament books, including all redactions, that existed around the time of Jesus.

[2] "Every Scripture [is] God-breathed [θεόπνευστος]" (2 Tim 3.16).

[3] See "The Chicago Statement on Biblical Inerrancy" (1978).

[4] Also, the Ethiopian Orthodox Church (36 million adherents) affirms 15 books not found in the Protestant canon.

[5] Lee Martin McDonald, quoted by Joe Heschmeyer, in "The Bible in the Time of Jesus", *catholic.com*.

[6] On Molinistic inspiration, God placed the authors in circumstances where God knew they *would freely* write God's intended words. Although they *could have* written words that God did not intend, they in fact *did* end up writing the words that God intended. God *guaranteed* the exact words without *determining* them. Thanks to William Lane Craig for this view.

[7] Michael Gilmour, "Reflections on the Authorship of 2 Peter", *EQ* 73.4 (2001): 292. An important recent contribution is Bart Ehrman, *Forgery and Counterforgery: The Use of Literary Deceit in Early Christian Polemics* (Oxford University Press, 2012). See chapter 8 for discussion of how the style and grammar of Colossians differs so systematically from Paul's undisputed letters. See chapter 10 for discussion of 2 Peter. For an audio summary of the evidence, see Bart Ehrman, "But Could Peter Write Anything?", *Misquoting Jesus Podcast* (Podcast, 2024).

[8] Gilmour, "Reflections", 292.

[9] Gilmour, "Reflections", 295-296.

[10] Ehrman, "But Could Peter Write Anything?"

[11] Thanks to Bart Ehrman for the points in this paragrap. See especially Bart Ehrman, *Forgery and Counterforgery: The Use of Literary Deceit in Early Christian Polemics* (Oxford University Press, 2012), chapter 11.

[12] An evangelical might claim that we shouldn't trust most scholars because they have biases—maybe they are intent on disproving the Bible. But the critic can say that all evangelical scholars are biased toward affirming 2 Peter's authenticity because they are religiously committed to believing that the Bible is God's inspired, inerrant Word.

[13] Fred Miller, "Early Church Fathers: Who Did They Think Wrote Hebrews?" and Daniel Mount, "Is Paul the author of Hebrews?" (2022).

[14] Thanks to the Non-Alchemist for bringing this passage to my attention.

[15] *The ESV Study Bible* (Crossway, 2008), 576.

[16] Bart Ehrman, *Misquoting Jesus* (HarperOne, 2007), 211.

[17] I owe this view to Jonathan Becker (personal correspondence).

Biblical Inerrancy

Biblical inerrancy is the doctrine that every proposition affirmed by the autographs is true.[1] There are no false propositions, either by error or intention.

1. Literal Truth

We can first ask whether the Bible is *literally* true in all the places where it is alleged to be recounting literal historical truth, such as the Gospels. The six examples below appear to prove that the answer is No:

•*Death of Jairus's Daughter.* In Mark 5.22-24, "Jairus came and, when he saw [Jesus], fell at his feet and begged him repeatedly, 'My little daughter is at the point of death'. … So [Jesus] went with him". Later on, "some people came from the leader's house to say, 'Your daughter is dead'" (5.35). So according to Mark, Jairus' daughter died *after* Jairus approached Jesus. However, in Matthew 9.18, Jairus "came in and knelt before [Jesus], saying, 'My daughter has just died'". So according to Matthew, Jairus' daughter died *before* Jairus approached Jesus. One might respond that 'My daughter has just died' can be retranslated as 'My daughter has just come to the point of death'. But this is wrong. The Greek word for 'died' [τελευτάω] as used in the Bible *always* means the death or end of something.[2]

•*Taking Staffs.* In Mark 6.8, Jesus told the disciples "to take nothing for their journey except a staff". In the parallel passage in Luke 9.3, Jesus told the disciples, "Take nothing for your journey, no staff."

•*Cursing the Fig Tree.* In Matthew 21.19-20, Jesus, "seeing a fig tree by the side of the road, … went to it and found nothing at all on it but leaves. Then he said to it, 'May no fruit ever come from you again!' And the fig tree withered at once. When the disciples saw it, they were amazed, saying, 'How did the fig tree wither at once?'" So according to Matthew, the fig tree withered at once. However, in Mark 11.14, 20-21, Jesus curses the fig tree, but the next morning, Peter is surprised to see it withered: "In the morning as they passed by, they saw the fig tree withered away to its roots. Then Peter remembered and said to [Jesus], 'Rabbi, look! The fig tree that you cursed has withered'". So according to Mark, the fig tree did *not* wither at once.

•*The Tearing of the Temple Curtain.* In Matthew 27.50-51, "Jesus cried again with a loud voice and breathed his last. At that moment the curtain of the temple was torn in two, from top to bottom". So according to Matthew, the curtain tore *at the moment* that Jesus breathed his last. However, in Luke 23.44-46, "it was now about noon, and darkness came over the whole land until three in the afternoon, … and the curtain of the temple was torn in two. Then Jesus, crying with a loud voice, said, 'Father, into your hands I commend my spirit'. Having said this, he breathed his last" . So according to Luke, the curtain tore *before* Jesus gave his last cry.

•*The Rolling of the Stone.* In Mark 16.4, when the women at the tomb "looked up, they saw that the stone, which was very large, had already been rolled back". So according to Mark, the stone had already been rolled back before the women came. However, in Matthew 28.1-2, the women "went to see the tomb. And suddenly there was a great earthquake, for an angel of the Lord descended from heaven and came and rolled back the stone and sat on it". So according to Matthew, the stone had *not* already been rolled back before the women came—they obviously saw it being rolled back.

•*Joseph's Fathers.* In Matthew 1.14-16, Joseph's patrilineal ancestry begins with Jacob, Matthan, Eleazar, Eliud, and Achim. But in Luke 3.23-25, Joseph's patrilineal ancestry begins with Heli, Matthat, Levi, Melchi, and Jannai. In addition, Matthew deletes three persons (Ahaziah, Joash, Amazia) from the parallel geneaology in 1 Chronicles 3.11-12.

2. Biblical Inerrancy

The previous six examples appear to show that not every part of the Bible is *literally* true. They do not, however, disprove biblical inerrancy. This is for the simple reason that one can interpret those passages *non-literally*. One can say that the passages above are still true, even though they are not *literally true*. All that is required for inerrancy is that the *actual* meaning—the *intended* meaning—of each sentence of the Bible is true.

One can defend the non-literality of the above passages by appealing to *ancient literary techniques*. In ancient times, it was standard practice for historians to add, remove, and alter details in their stories; and such alterations were not considered erroneous or deceitful.[3]

For example, consider the technique of *compression*, in which the timeline of an event is intentionally shortened. This would explain the cases involving the fig tree and Jairus's daughter. One could say that, in both cases, Mark's earlier account had a longer, more detailed version, which Matthew took and compressed into a shorter duration, not in a way that would *deceive* anyone or make Matthew's account *false*, but inline with standard literary techniques of the time period. Thus, Matthew's account, though not *literally* true, is true nonetheless.

Or consider the technique of changing a geneaology to make a theological point, which Matthew surely did when removing the three names from the geneaology. The numerical value of the Hebrew name 'David' [דָּוִד] is fourteen, and Matthew clearly wanted to emphasize that Christ was the son of David by having fourteen generations in each of the three segments of his geneaology.

Similarly, perhaps the earthquake and the descending angel in Matthew 28 were simply added as theological embellishments—not to deceive people, but as an act of religious devotion to the glory of God as revealed in Jesus's resurrection.

Appealing to ancient literary techniques appears to succed in avoiding contradictions in the six examples above. However, it *does* appear to put us in the dark about the *details* of the Gospels. If

any of the four Gospels could use ancient literary techniques at any time, then there could be details that are added, removed, and altered in *every story*. And so it appears that we shouldn't be too confident about much more than the gist or general message of each story.

Moreover, appealing to ancient literary techniques does *not* solve every potential problem for inerrancy. Here are four examples that seem immune to the appeal to literary techniques:

•*Awaiting Pentecost.* In Matthew 28.1, 10, 16-17, on the day of the resurrection, Jesus said to the disciples: "Go and tell my brothers to go to Galilee; there they will see me". Later on, "the eleven disciples went to Galilee" and saw Jesus. However, in Luke 24.13, 49, on the day of the resurrection, Jesus told the disciples to "stay here in [Jerusalem] until you have been clothed with power from on high".[4] Putting these two narratives together, the eleven disciples went to Galilee, and then went to Jerusalem in the same day, and then stayed there until Pentecost. But Galilee is 70 miles away from Jerusalem; that's 24-28 hours of walking without taking any breaks. So the disciplies *couldn't* have gone from Galilee to Jerusalem in the same day, let alone *after* seeing and talking to Jesus after his resurrection. It seems unlikely that there is some ancient literary technique that would allow moving characters to different cities. It appears more likely that the authors of Matthew and Luke used *different sources* about what Jesus said after his resurrection, and one of these sources had incorrect information.

•*Boiling in Fire.* The Passover instructions in Exodus 12.8-9 say to "roast" [צְלִי־] the meat over fire and prohibit boiling [מְבֻשָּׁל] in water. But the Passover instructions in Deuteronomy 16.5-7 say to boil [וּבִשַּׁלְתָּ] the meat in water. What's more, the author of 2 Chronicles 35.13 saw the discrepancy and mashed the two instructions together, saying that the Israelites "boiled [וַיְבַשְּׁלוּ] the meat in the fire", which is incoherent. Many English translations hide the discrepancy altogether by incorrectly translating וּבִשַּׁלְתָּ and וַיְבַשְּׁלוּ as 'roast'.[5] This appears to be an error. First of all, surely God did not arbitrarily changed God's instructions on how to prepare the Passover. Second of all, it is simply false that the Israelites "boiled the meat in the fire", since you cannot boil meat in fire.

•*None of You Asks Me.* John 13.36: "Simon Peter said to [Jesus], 'Lord, where are you going?'" But in John 16.5, Jesus says, "But now I am going to him who sent me, yet none of you asks me, 'Where are you going?'" The error is clear. Some have stated that 'asks' is in the present tense, so it doesn't apply to Peter's previous question. But this response seems strained. Surely Jesus wasn't limiting his statement to the past five seconds. At the very least, he was limiting it to the scene. And the two verses are depicted in the same scene, since Jesus's long speech—with occasional interjections by the disciples—spans at least from John 13.31 to 16.33. The most likely explanation seems to be that John compiled the whole story from different sources that had conflicting information about what Jesus and his disciples were saying.

•*You Will See the Son of Man.* In Mark 14, Jesus says to the high priest, "you will see the Son of Man seated at the right hand of the Power" and "coming with the clouds of heaven". As far as we know, the high priest never saw either of these things. It was never reported or hinted at in the

slightest, in the Bible or anywhere else. First of all, it seems that Jesus is describing a true, physical coming of the Son of Man, publicly visible. This obviously never happened. Second of all, even if Jesus was merely talking about a vision, then if the high priest *had* seen such a wondrous vision, it surely would have been reported somewhere. So this appears to be a false prediction on Jesus's part.

3. Conclusions and Implications for Inspiration

Based on the previous essay, it seems we don't have good reason to believe in evangelical inspiration, which implies that we don't have good reasons to believe in evangelical inerrancy. The problems raised in this essay give us reason to reject inerrancy.

Now, the mere fact that there are *some* falsehoods in the Bible does not alone imply that the evangelical doctrine of inspiration is false. For consider the following scenario: Matthew, under divine inspiration, writes a sentence. Matthew makes some sort of historical error such that, in that sentence, Matthew affirms a false proposition. But *God* allows the sentence to be part of the Bible, even though God doesn't affirm that false proposition. For example, God might only affirm a *true* proposition regarding the gist or general message of that sentence, without being so concerned with the accuracy of the details that God would micromanage Matthew into getting every detail right—God might be more "hands-off" regarding the details. Second, God might use that sentence to affirm a true proposition about some *deeper meaning* or message that Matthew is not aware of, and that does not rely on Matthew's getting every detail correct.[6]

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[1] The related doctrine of *infallibility* is the view "that the Bible is completely trustworthy as a guide to salvation and the life of faith and will not fail to accomplish its purpose" (Donald McKim, *Westminster Dictionary of Theological Terms* (Westminster John Knox Press, 1996)). Similarly, "The Bible is infallible if and only if it makes no false or misleading statements on any matter of faith and practice" (Stephen Davis, *The Debate about the Bible: Inerrancy Vs. Infallibility* (Westminster John Knox Press, 1977), 23). Obviously this leaves open whether inerrancy is true. R. C. Sproul, "Infallibility and Inerrancy", *Ligonier* says that infallibility means "that the Word of God is incapable of erring" and claims that Davis's definition is a "misuse of the word", but Sproul seems to be in the minority here.

Clarity is sacrificed if we fail to frame the inerrancy discussion in terms of *propositions*. We end up using phrases such as "mixing genres" and "imposing a modern lens on an ancient worldview", which invite confusion and frustration. For unfortunate examples, see Mike Licona and Bart Ehrman, "DEBATE: Bart Ehrman vs Mike Licona (Are the Gospels Historically Reliable? 2018)", *Mike Licona* (YouTube, 2018), and the first few chapters of Peter Enns, *Inspiration and Incarnation: Evangelicals and the Problem of the Old Testament*, 2nd ed. (Baker Academic, 2015). These two sources are otherwise helpful.

[2] "G5053 - teleutaō - Strong's Greek Lexicon (rsv)", *Blue Letter Bible*. Also, over 25 major biblical translations translate it that way (including the NIV, NRSV, ESV, NASB, and NKJV). The only translation I found that uses something different ('My daughter is dying even now') is the *Aramaic Bible in Plain English*, which was obviously not translated directly from the best Greek manuscripts.

[3] See Mike Licona, *Why Are There Differences in the Gospels?* (Oxford University Press, 2016).

[4] There were several well-known problem texts that I have omitted because I don't find them persuasive: the settling in Nazareth, the date and time of Jesus's crucifixion, the death of Judas, Matthew's "miscounting" 14 generations as 13, Paul's conversion, and others. I have detailed written thoughts on some of these, so email me at sitecubing@gmail.com if you would like me to send them to you.

[5] Enns, *Inspiration and Incarnation*.

[6] I owe the idea of the divine and human intentions coming apart to Randal Rauser. See Rauser, *Jesus Loves Canaanites* (2 Cup Press, 2021).

The Gospels

1. Basic Facts about Jesus

Most scholars believe we can establish a handful of facts about Jesus: he was an itinerant Jewish preacher, lived from 6-4 BCE to 30 or 33 CE, was baptized by John the Baptist at the beginning of his ministry, preached about the coming Kingdom of God, was known as a miracle worker and exorcist, had disciples, and was crucified. In addition, after his death, some of his disciples had experiences which they believed to be appearances of the risen Jesus. Facts in addition to these are almost always more controversial.

2. Names and Places

The gospels and Acts correctly identify dozens of names and places in first-century Palestine. This makes them more likely to be accurate than they would be if they failed to do so. But this does not guarantee that they are completely reliable regarding *events*. The authors could correctly identify names and places but still be inaccurate regarding the *events* they record.

3. Eyewitnesses Reliability

In recent years, a wealth of literature on psychology, memory, and eyewitness testimony has emerged. The consistent results of research indicate that memories of events from long ago are far less reliable than we would like to believe. Even flashbulb memories—such as people's recollections of details about their situation when they witnessed 9/11 or the shooting of JFK—have been demonstrated to be frequently unreliable in details.[1]

4. Oral Traditions

Given that Jesus died around 30 CE, and the earliest Gospel was probably not written until 65-70 CE, it is virtually certain that the information in the Gospels about Jesus's words and deeds was taken from *oral traditions* that were circulating in Christian communities, beginning during Jesus's lifetime and continuing into the second century. Stories change over time as they are retold over and over again. There is debate about exactly *how much* the stories in the early Christians communities changed, but it is certainly unrealistic that every single detail, or even almost all of the details, would remain unchanged. Imagine a game of telephone that lasts for thirty-five years and is retold by hundreds of people. Is it reasonable to think that every detail, or mostly every detail, of the final message will be exactly the same as in the original message? Dale Allison's view is that we can be reasonably confident only about the overall gists, patterns, or motifs of some of the Jesus stories, not about their exact details.[2]

5. Eyewitness Testimony

There are at least four reasons to think that the Gospels were not written by eyewitnesses. First, the gospels never claim to be written by eyewitnesses. The gospels were not even mentioned in other sources until 120 and not given titles until around 185.

Second, the disciples spoke Aramaic and were uneducated and almost certainly illiterate, whereas the gospels are written in highly literate Greek and are well-read in the Septuagint (the Greek translation of the Old Testament). There is no evidence in the ancient world of anyone's using a secretary to translate a dictation into another language. Thus, the Gospels were likely written by Greek-speaking Christians who lived outside of Palestine and had heard stories that had been in circulation in the Christian communities for over 30 years (or, in the case of John, over 60 years).

Third, the gospels used earlier sources. Luke and Matthew used Mark as a source. They also probably used Q, a collection of sayings of Jesus that had been circulating in Christian communities. In addition, Mark, Matthew, and Luke probably had their own sources, such as the Markan Passion narrative, M (material unique to Matthew) and L (material unique to Luke).

Fourth, Luke and Mark were not even disciples of Jesus, and Luke even claims that he investigated "everything from the beginning, to write an orderly account" *after* the original stories had already been "handed on to us by those who from the beginning were eyewitnesses and servants of the word" (1.2-3).

6. Manuscript Transmission

We do not have any original manuscripts of any books of the New Testament. The original manuscripts of the four Gospels were written or compiled around 70-100 CE, and they were copied by people in the Christian communities. Those copies were copied, and this continued for hundreds of years. The earliest copies that survive today are from 125 at the very earliest, and even these manuscripts are fragments each containing only a handful of verses. For example, the original manuscript of Mark was written around 70, and the earliest manuscript we have is a six-verse fragment from 150 at the very earliest. The first complete gospel of Mark (excluding 16.9-20) does not appear until the 300s.

Yes, we have an enormous number of Greek manuscripts of the New Testament—over 5800—but many of these are fragments, not even entire books or chapters. In addition, almost all of them were created multiple centuries after Jesus' death, and many of them are so similar that it's clear that they had earlier manuscripts as common sources. So, contrary to popular Christian apologetic claims, the mere fact that we have an enormous number of similar manuscripts does not confirm that we have the original writings, let alone that the manuscripts are historically accurate about Jesus's words or deeds (see §8 below).

One might object that we should be confident that we have the original writings because we have multiple lines of transmission that match up pretty well with each other. But this assumes that the originals were copied multiple times and that each (or most) of these first-generation copies was the source of a distinct surviving line of transmission. It is just as likely that the originals were copied once and then lost, and then the first-generation copies were also copied once and then lost, with mistakes and intentional changes being introduced both times. In this case, the multiple lines of transmission originated from the *copy of the copy*, not from the original manuscript. This might even be too optimistic, since the first *several* generations of copies might have been lost before multiple lines of transmission began.

One might claim that we have been able to establish the original text to over 99% accuracy. But this claim is seriously problematic, for two reasons. First, all the manuscripts we have might have originated from some later copy that might be less than 99% similar to the original. Second, since we do not have the original text, we cannot compare it to the manuscripts that we do have, and therefore it makes little sense to say that we know with 99% accuracy what the original text said. Even if all our manuscripts are 99% similar to *each other*, that does not imply that we know with 99% accuracy what the *originals* said. In addition, the Greek New Testament contains 138,162 words, and the gospels contain 64,767 words. Even if we can establish the original text to 99% accuracy, that means we are unsure about *over 13,000* words in the New Testament and *over 6,000* words in the gospels.

One might claim that we can reconstruct essentially the entire original text of the New Testament from the quotations of church fathers. But once again, this makes no sense, since we do not have the original text to make a comparison.[3]

So what should we believe about what the originals say? On the one hand, we have thousands of manuscripts that are 99% similar to each other. And the differences among them do not disagree about any major Christian doctrines (except perhaps any useful definition of biblical inerrancy). On the other hand, we do not have the originals, and so we can't be certain what changes were made between the originals and the copies that we have. And it doesn't appear that we will ever discover any new evidence that will change this situation. At the end of the day, it seems to me more reasonable to think that our copies closely resemble the originals than to think there are significant, undiscoverable differences. I wouldn't be surprised if we somehow found that minor details here and there have been changed from the originals, but I wouldn't expect anything significant or monumental. So although I maintain a sliver of doubt, I personally accept that we have close representations of the original texts.

7. Scribal Changes

Multiple passages are known to have been added by scribes. The resurrection story in Mark 16.9-20 and the story of the adulterous woman in John 7.53-8.11 are considered not to be part of the original writings, since they are not found in any of the oldest manuscripts. Many scholars think the bloody sweat passage in Luke 22.43-44 was a late addition.[4] Bruce Metzger states,

> These verses are absent from some of the oldest and best witnesses, including the majority of the Alexandrian manuscripts. It is striking to note that the earliest witnesses attesting the verses are three Church fathers – Justin, Irenaeus, and Hippolytus – each of whom uses the verses in order to counter Christological views that maintained that Jesus was not a full human who experienced the full range of human sufferings. It may well be that the verses were added to the text for just this reason, in opposition to those who held to a docetic Christology.[5]

Other passages have been changed by scribes in order to correct apparent mistakes in the originals. In the earliest surviving manuscripts of Mark, the author claims to cite "Isaiah the prophet" (1.2), but cites Malachi, and Isaiah after that (Mk 1.2-3). In later manuscripts, scribes changed "Isaiah the prophet" to "the prophets", an obvious correction of Mark's apparent mistake. Similarly, in the earliest surviving manuscripts of Matthew, the author claims to cite "what had been spoken through the prophet Jeremiah" (27.9), but instead provides a reworded version of Zechariah 11.13. In later copies of Matthew, some scribes omitted "Jeremiah" and others replaced it with "Zechariah", obviously attempting to correct Matthew's error.

Other non-Gospel passages were apparently inserted within a sentence, e.g., the Johannine comma (bracketed): "For there are three that bear record [in heaven, the Father, the Word, and the Holy Ghost: and these three are one. And there are three that bear witness in earth], the Spirit, and the water, and the blood: and these three agree in one" (1 Jn 5.7-8 KJV). All scholars apparently agree that this was a late addition.[6]

Another possible insertion is 1 Cor 14.34-35: "Women should remain silent in the churches. They are not allowed to speak, but must be in submission, as the law says. If they want to inquire about something, they should ask their own husbands at home; for it is disgraceful for a woman to speak in the church". Although it exists in all our earliest manuscripts, it (1) appears inserted, breaking up an otherwise natural flow of thought, (2) contradicts Paul's implied condoning of women prophesying (with their head covered) in 1 Cor 11.5, and (3) appears in different places in different manuscripts—which many scholars consider unlikely if Paul wrote it.[7]

8. Ancient Literary Techniques and Theological Embellishments

Multiple passages in the Gospels should not be taken literally—not to avoid a contradiction, but because the author was either (1) using an ancient literary technique (see "Biblical Inerrancy") or (2) inserting a theological embellishment. But how common are these alterations? If they happened in multiple of the passages discussed above, could they not happen anywhere—in most of the stories we find in the Gospels?

Ancient literary techniques could be at play *anywhere*. We know that Matthew edited Jesus's genealogy. How do we know Luke did not also do so? We are thus in the dark about the name of Jesus's grandfather, great-grandfather, great-great-grandfather, and so on. Similarly, we don't know whether Jairus told Jesus that his daughter was dying or dead, whether Jesus told the

disciples to take staffs, how long the fig tree took to wither, whether the temple curtain tore during or after Jesus' last cry, whether the stone was rolled away before or after the women came to the tomb, or whether the disciples stayed in Jerusalem. Maybe the "gists" of all these stories are correct, but we are left in doubt about the details.

The same goes for theological embellishments. If the curtain tearing, the angel, and the earthquake were theological embellishments, then how do we know that other miracles were not? We don't know that the virgin birth wasn't a theological embellishment on the part of Matthew to make sure that Jesus fulfilled Isaiah 7.14's prophecy of a "virgin" birth (if it was, then it would have been a mistake, since Isaiah speaks only of a "maiden" (עַלְמָה) birth). The same goes for many other miracles. So the admission of theological embellishments—which is necessary to maintain inerrancy, as I demonstrated in "Biblical Inerrancy"—leaves us in doubt about many of the Gospel miracles.

9. Establishing Historicity

An important reason for doubting the total historicity of the gospels is that they were not written by disinterested historians, but by religiously committed Christians proclaiming certain messages about Jesus, including that he was the Jewish messiah, a divine figure sent from God, and the savior of the world. Early Christians are known to have made up stories about Christ. So how do we know that Matthew did not invent the narrative of Jesus' birth in Bethlehem, to make sure that Jesus fulfilled the prophecy of Micah 5.2? How do we know that most or even all the miracle stories were not invented by the gospel writers out of devotion to their Lord Jesus? I am not suggesting that nothing recorded in the gospels ever occurred. I am saying that it is irresponsible simply to assume that some event happened merely because it is recorded in a gospel, at least if such a record betrays a theological agenda.

In any case, we have to evaluate events individually. The probability of the historicity of a given event increases to the extent that the event meets certain historical criteria, for example: multiple attestation, dissimilarity to the authors' agendas, embarrassment, and variations in minor details along with sameness of the gist of the event.

But even these criteria are doubtful. Embarrassment doesn't guarantee historicity. Anything that survived until today was obviously not embarrassing enough for early Christians to omit from their traditions. Such details could still have been invented. Similarly, multiple attestation doesn't guarantee historicity. At the most, it guarantees that the event/saying is older than each of the sources in which it is found. One of the sources could have copied it from another, and the original event/saying still could have been invented. On the flip side, the fact that an event/saying has only one attestation does not necessarily mean it is *less* likely to be historical. An event/saying might be singly attested because it caused theological problems in the early church and so was omitted from other copies.[8]

An example of an established historical event is the crucifixion of Jesus. The crucifixion is recorded in all four gospels (Mt 27, Mk 15, Lk 23, Jn 19). In these gospels, there are significant variations in both details and emphases, such as the words and dispositions of Jesus. The crucifixion is also attested in the New Testament epistles as well as extra-biblical sources. Finally, the crucifixion was very dissimilar to the authors' agenda that the Jewish messiah would come to earth as a powerful ruler to destroy the forces of evil. Therefore we can be very confident that the crucifixion occurred.

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[1] See Bart Ehrman, *Jesus Before the Gospels* (New York: HarperOne, 2017).

[2] See Dale Allison, *The Historical Christ and the Theological Jesus* (Eerdmans, 2009) and Dale Allison, *Constructing Jesus: Memory, Imagination, and History* (Baker Academic, 2013). See also Bart Ehrman, *Jesus Before the Gospels: How the Earliest Christians Remembered, Changed, and Invented Their Stories of the Savior* (HarperOne, 2017). For a more conservative view, see Richard Bauckham, *Jesus and the Eyewitnesses: The Gospels as Eyewitness Testimony* (2nd ed., Grand Rapids: Eerdmans, 2017), esp. ch. 10-12. The "game of telephone" idea is from Bart Ehrman.

[3] I owe all the points in the last three paragraphs to Bart Ehrman.

[4] See Bart Ehrman, "Did Scribes Add the Passage of the Bloody Sweat?", *The Bart Ehrman Blog*, and Yuriy Stasyuk, "bloody forgery?", *The Reluctant Skeptic*.

[5] Bruce Metzger, *The Text of the New Testament* (Oxford University Press, 1968).

[6] See Michael D. Marlowe, "The Johannine Comma", *bible-researcher.com*.

[7] See "Is 1 Corinthians 14:33-35 an interpolation?", Biblical Hermeneutics.

[8] The points in this paragraph are from Dale Allison, *Jesus of Nazareth: Millenarian Prophet* (Fortress Press, 1998).

Jesus the Apocalyptic Prophet

In this essay, I examine evidence that Jesus expected the world to end within a few generations.

1. Jesus

Jesus is reported to have said things that betrayed expectations of a near apocalypse. Each of these sayings would seem quite unexpected if Jesus did *not* expect a near apocalypse.

- Mk 13.29-30/Mt 24.33-34: "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."
- Mk 9.1/Mt 16.28: "Truly I tell you, there are some standing here who will not taste death until they see that the kingdom of God has come with power." Note that it says "has come."
- Mk 1.15: "The time has come," [Jesus] said. "The kingdom of God has come near. Repent and believe the good news!" These are the earliest recorded words of Jesus.[1]
- Mk 14.62: "'I am [the Messiah],' said Jesus. 'And you will see the Son of Man sitting at the right hand of the Mighty One and coming on the clouds of heaven.'"
- Mk 13.2: "Do you see these great buildings? Not one stone will be left here upon another; all will be thrown down."
- Mt 10.23: "When they persecute you in one town, flee to the next; for truly I tell you, you will not have gone through all the towns of Israel before the Son of Man comes."
- Mt 23.36: "Truly I tell you, all this [i.e., all the aforementioned judgement and woes] will come upon this generation."
- Mt 24.42, 44: "Keep awake, therefore, for you do not know on what day your Lord is coming. … You also must be ready, for the Son of Man is coming at an hour you do not expect."
- Mk 13.14: "When you see 'the abomination that causes desolation' standing where it does not belong—let the reader understand—then let those who are in Judea flee to the mountains."

As Tim O'Neill points out, these passages do not portray a distant event, nor a vague spiritual age, but an imminent apocalypse. This coheres with the Judaism in which Jesus grew up:[2]

- Hab 2.3: "For there is still a vision for the appointed time; it speaks of the end, and does not lie. If it seems to tarry, wait for it; it will surely come, it will not delay."
- Isa 46.13: "I am bringing my righteousness near, it is not far away; and my salvation will not be delayed."
- 4 Ezra 4.26, 8.61: "The age is hurrying swiftly to its end … judgement is now drawing near."
- 2 Bar 85.10, 82.20: "The advent of the times is very short … the end which the Most High prepared is near."[3]

Jesus is recorded as cleansing the temple (Mk 11.15-19, Mt 21.12-17, Lk 19.45-48, Jn 2.13-16). As E. P. Sanders and Dale Allison argue, the best interpretation of this is that Jesus thought God would raise a new temple.[4] The Gospels record Jesus's prophesying that the temple would be

destroyed (Mk 13.2, Lk 19.44, see also Acts 6.14) and prophesying that it would be rebuilt (Mk 14.58, Jn 2.19). As Allison points out, "such a prophecy coheres with the expectation preserved in *1 En.* 90:28-29 and 11QTemple 29:8-10".[5]

Jesus is recorded as choosing twelve disciples (Mk 3.13). Sanders and Allison argue that this "should be interpreted in terms of restoration eschatology, the end-time reestablishment of Israel's twelve tribes".[6] Allison points out that "most of the tribes had disappeared into the mists centuries before Jesus", and so there isn't any good reason that Jesus would choose twelve disciples except to remind people of Israel and symbolize Israel's imminent restoration.[7]

2. Parallels with Other Apocalyptic Groups

There are many striking parallels between Jesus's mission and the outlook of other groups that expected an imminent apocalypse:

- The Jewish "Ṣabbatai Sevi, whose movement thrived amid rumors of the imminent return of the ten tribes, chose twelve rabbinic scholars to represent restored Israel."[8]
- The Ghost Dance, the Maccabean Revolt, and Pacific cargo cults appeal to the "disaffected and unfortunate [people] in a period of social change that threatens traditional ways."[9]
- The Ghost Dance, Earth Lodge Cult, Milne Bay Prophet Cult, Borneo njuli movement, and some Chinese and Japanese movements interpreted "the present and near future as times of atypical, or even unprecedented, suffering, and/or catastrophe."[10]
- The Mansren myth, African-American "Wilderness Worshipers", Mt. Rurun Movement, and the Canudos messianic uprising envisaged a large-scale reversal, a "divinely-wrought comprehensive righting of wrongs."[11]
- Apocalyptic movements "tend to divide humanity into two camps, the saved and the unsaved", "emphasize the value of … cultural heritage", replace family bonds with bonds within the movement,[12] involve "intense commitment and unconditional loyalty", "coalesce around a charismatic leader", formulate their beliefs "as fresh revelation … authenticated by a prophet's miracles", "sometimes take a passive political stance in expectation of a divinely-wrought deliverance",[13] and "commonly expected a restored paradise that will restore the ancestors".[14]

It would seem odd to think that, despite all these parallels, Jesus's movement turned out not to be apocalyptic. On the other hand, if Jesus's movement *was* apocalyptic, then there is no tension; Jesus's movement belonged firmly to the apocalyptic category.

3. John the Baptist

John the Baptist, a Jewish preacher closely associated with Jesus and sometimes considered to be Jesus's forerunner, is also reported as preaching an imminent apocalypse: "Repent, for the kingdom of heaven has come near" (Mt 3.3). Given that Jesus got John to baptize him (Mt 3.13-17), surely Jesus would not subsequently break away from John's message.

4. The Early Church

The early church (30-60 CE), most notably Paul, apparently expected an imminent apocalypse in which there would be wrath, judgement, and a resurrection of the dead:

- Dale Allison: "Almost everything … known about early Christianity brands it as an eschatological movement."[15]
- 1 Thess 1.9-10: "For they report about us what kind of welcome we had among you and how you turned to God from idols to serve a living and true God and to wait for his Son from heaven, whom he raised from the dead—Jesus, who rescues us from the coming wrath."
- 1 Thess 4.14: "For this we declare to you by the word of the Lord, that we who are alive, who are left until the coming of the Lord, will by no means precede those who have died."
- 1 Thess 4.16-17: "For the Lord himself, with a cry of command, with the archangel's call and with the sound of God's trumpet, will descend from heaven, and the dead in Christ will rise first. Then we who are alive, who are left, will be caught up in the clouds together with them to meet the Lord in the air; and so we will be with the Lord forever."
- 1 Thess 5.1, 6: "Now concerning the times and the seasons, brothers and sisters, you do not need to have anything written to you. For you yourselves know very well that the day of the Lord will come like a thief in the night. … So, then, let us not fall asleep as others do, but let us keep awake and be sober."
- 1 Cor 4.5: "Therefore do not pronounce judgment before the time, before the Lord comes, who will bring to light the things now hidden in darkness and will disclose the purposes of the heart. Then each one will receive commendation from God."
- 1 Cor 7.26: "In view of the impending crisis, it is good for you to remain as you are. Are you bound to a wife? Do not seek to be free. Are you free from a wife? Do not seek a wife."
- 1 Cor 10.11: "These things happened to them to serve as an example, and they were written down to instruct us, on whom the ends of the ages have come."
- 1 Cor 15.51-52: "Look, I will tell you a mystery! We will not all die, but we will all be changed, in a moment, in the twinkling of an eye, at the last trumpet. For the trumpet will sound, and the dead will be raised imperishable, and we will be changed."
- 1 Cor 15.12, 20: "Now if Christ is proclaimed as raised from the dead, how can some of you say there is no resurrection [ἀνάστασις] of the dead? … But in fact Christ has been raised from the dead, the first fruits of those who have died." Given that Paul used the word ἀνάστασις, which always in this context indicates a physical bodily resurrection,[16] and that Paul labeled Christ as the "first fruits"—i.e., the first of many to have died and then been raised, Paul is clearly talking about a future bodily resurrection event.
- According to Allison, early Christianity witnessed a missionary explosion, which makes good sense of the urgency that comes from expectation of an imminent apocalypse.[17] Allison points out that Mark 13.10 urges evangelism in the context of speaking about the end times.[18]

This evidence would be extremely odd if Jesus had *not* expected an imminent apocalypse—i.e., if the early church had developed that doctrine on their own. Presumably, the early church received its central practices and beliefs from Jesus: opposition to divorce, calling God "Father",

lack of concern with Pharisaic laws, a "strong missionary impulse", the "imperative to love others", and the fact that following Jewish rituals was neither necessary nor sufficient to be saved. Why would we make an exception for their apocalyptic expectations? It makes the most sense to say that these expectations, like all the beliefs just mentioned, came from Jesus.[19]

5. The Shift from an Imminent Apocalypse to a Present Spiritual Kingdom

There is a clear shift between earlier Christian writings (Mark, Matthew, 1 Thess, 1 Cor, etc.) and later Christian writings (Luke, John, 2 Cor, Colossians, etc.). After a generation had gone by and the apocalypse had not arrived, the expectation of an imminent apocalypse was replaced by the teaching that a spiritual, heavenly kingdom is already present and that eternal life is immediately accessible. Jesus's sayings are thus edited and reinterpreted according to this new message.[20]

- Lk 17.20-21: "The kingdom of God is not coming with things that can be observed; nor will they say, 'Look, here it is!' or 'There it is!' For, in fact, the kingdom of God is within you." This plainly contradicts Mk 14.62, 13.14, and 13.29, which explicitly say that the coming kingdom will be indicated by visible signs.
- Lk 22.67-69: "If I tell you, you will not believe; and if I question you, you will not answer. But *from now on* the Son of Man will be seated at the right hand of the power of God" (my emphasis). (Note how different this is from the earlier version of the saying in Mark 14.62: "And you will see the Son of Man sitting at the right hand of the Mighty One and coming on the clouds of heaven.")
- In the Gospel of John, Jesus' message is no longer centered around the coming kingdom and impending judgement but around the divine identity of Christ and the possibility of *immediately* entering into eternal life.
- Jn 1.1, 14: "In the beginning was the Logos, and the Logos was with God, and the Logos was God. … And the Logos became flesh and lived among us, and we have seen his glory."
- Jn 3.19: "And this is the judgment, that the light has come into the world, and people loved darkness rather than light because their deeds were evil." The judgement is not impending, but has *already* occurred.
- Jn 3.3: "I tell you, no one can see the kingdom of God without being born from above."
- Jn 3.16/Jn 3.36: "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."
- John contains the seven "I am" statements: the bread of life (6.35), the light of the world (8.12), the door (10.7), the good shepherd (10.11), the resurrection and the life (11.25), the way, the truth, and the life (14.6), and the true vine (15.1).
- Jn 4.14: "Those who drink of the water that I will give them will never be thirsty. The water that I will give will become in them a spring of water gushing up to eternal life."
- In 2 Corinthians, Paul shifts his emphasis away from an imminent apocalypse to a present, ongoing ministry of the Spirit within a new covenant. As N. T. Wright has pointed out, the disappointment and pain that Paul expresses in 2 Corinthians is tangible (see esp. 1.3-8, 4.7-12, 5.2-4, and 11.23-29).[21] Absent is any notion of a near apocalypse. It has been replaced with a sense of needing to settle in for the long haul.

- 2 Cor 3.8, 18: "Will not the ministry of the Spirit be even more glorious? … And we all, who with unveiled faces contemplate the Lord's glory, are being transformed into his image with ever-increasing glory, which comes from the Lord, who is the Spirit."
- 2 Cor 4.6: "For God, who said, 'Let light shine out of darkness,' made his light shine in our hearts to give us the light of the knowledge of God's glory displayed in the face of Christ."
- 2 Cor 5.17: "Therefore, if anyone is in Christ, the new creation has come: The old has gone, the new is here!"
- Col 1.13: "He has rescued us from the power of darkness and transferred us into the kingdom of his beloved Son."
- Col 3.1: "So if you have been raised with Christ, seek the things that are above, where Christ is, seated at the right hand of God."

The new teaching is no longer about a future physical resurrection, but rather a present *spiritual* resurrection. This new message is strikingly different from the earlier message of Jesus and Paul. It seems that the best explanation for this evidence is that Jesus and the early church originally *did* expect a near apocalypse, but when that did not happen, Paul and the early church had to update their beliefs, prepare to live out their lives as Christians, start families, and begin consolidating the church into a structured organization.[22]

6. Conclusions

All this evidence might not give us absolute certainty that Jesus expected a near end. This position is especially difficult to embrace for someone who has thought differently about Jesus for their entire life—myself, for example. This is not merely the view that the Bible contains a few errors here and there; it is the view that a central component of Jesus's message was mistaken. How can one be a follower of Jesus if one believes that he was so crucially mistaken?

Note that not *every* piece of evidence points in the same direction. For example, the beatitudes in Luke 6 are more physical in nature, whereas those in the likely earlier Matthew 5 are more spiritual in nature.

However, it seems to me that if we try to be neutral and compare the different theories about Jesus, the apocalyptic theory seems to be the best theory. Non-apocalyptic theories—Jesus as mere aphoristic sage, or mere moral teacher, or political revolutionary, or social justice warrior, or teacher of the "already-but-not-yet" doctrine—do not account for the evidence as well as the apocalyptic view, and sometimes add unnecessary complexity.

Note that a recently argued-for alternative theory is that Jesus was an apocalyptic prophet who made prophecies that were *conditional* upon human cooperation.[23]

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[1] According to the standard dating of Mark as the earliest gospel.

[2] Tim O'Neill, "Jesus the Apocalyptic Prophet", *History for Atheists*. Several of the biblical passages in the present essay were taken from Tim's article.

[3] "In addition to Daniel and Revelation, prominent literary apocalypses include 1 Enoch, 2 and 3 Baruch, 4 Ezra, the Apocalypse of Abraham, the Shepherd of Hermas, and the Apocalypse of Peter", from Greg Carey, "Apocalyptic Literature", *Oxford Bibliographies*.

[4] Dale Allison, *Jesus of Nazareth: Millenarian Prophet* (Fortress, 1998), 96, who for this point cites E. P. Sanders, *Jesus and Judaism* (Philadelphia, Fortress: 1985), 61-90.

[5] Allison, *Jesus of Nazareth*, 100.

[6] Allison, *Jesus of Nazareth*, 97, citing Sanders, *Jesus and Judaism*, 95-106.

[7] Allison, *Jesus of Nazareth*, 101.

[8] Allison, *Jesus of Nazareth*, 101, citing Gershom Scholem, *Sabbatai Sevi: The Mystical Messiah* (Princeton: Princeton University Press, 1973), 222.

[9] Allison, *Jesus of Nazareth*, 81.

[10] Allison, *Jesus of Nazareth*, 82.

[11] Allison, *Jesus of Nazareth*, 84.

[12] Mk 3.33-35: "For whoever does the will of God, he is my brother and sister and mother".

[13] Mk 12.17: "give to Caesar what belongs to Caesar".

[14] The quotations in this paragraph are from Allison, *Jesus of Nazareth*, 86-92.

[15] Allison, *Jesus of Nazareth*, 110.

[16] N. T. Wright, *The Resurrection of the Son of God* (Fortress, 2003).

[17] Allison, *Jesus of Nazareth*, 110.

[18] Mk 13.10: "And the gospel must first be preached to all nations".

[19] This paragraph is adapted from Allison, *Jesus of Nazareth*, 113.

[20] To be clear, apocalyptic expectations have never really *disappeared*—they persist into the modern age (think of Hal Lindsey). Thanks to Bart Ehrman for this point.

[21] N. T. Wright, *The Resurrection of the Son of God*.

[22] Surely this makes more sense than the alternatives: (i) that Jesus's message was non-apocalyptic but the early church temporarily made it apocalyptic, or (ii) that both messages were believed concurrently by the same groups.

[23] Christopher Hays and Casey Strine, in Jordan Hampton, "Solving the Problem of the Delay of the Parousia", *The Analytic Christian* (YouTube, 2023). See also their book, *When the Son of Man Didn't Come* (Fortress Press, 2017).

The Bible and Classical Theism

Classical Theism entails the following four doctrines:[1]

1. *Simplicity.* God has no internal distinctions or complexity. All of God's properties are necessary and identical with each other and with God.
2. *Timelessness.* God is not located or extended anywhere in time. Thus, God does not exist right now, God never existed in the past, and God will never exist in the future. Rather, God exists in a single, changeless, static, timeless state.
3. *Immutability.* God cannot change in any way, intrinsically or extrinsically.
4. *Impassibility.* God cannot be influenced or affected in any way by anything external to God.

Let's see what the Bible and Christian orthodoxy teach about each of these four doctrines.

1. Divine Simplicity

> Psalm 30.5: "For his anger is but for a moment; his favor is for a lifetime."

This verse differentiates between two properties of God: anger and favor. It says that they last for different durations. That implies that they are different properties. They are not the same property. Plus, an easy conceptual analysis shows that they are different. Anger is an internal negative feeling, perhaps toward some object, perhaps accompanied by the desire for that object to undergo suffering. Favor, however, is an internal positive feeling toward an object, especially accompanied by beneficient acts toward that object. These are not the same thing. There's no "mystery" that we need to accept here. Anger and favor are different things.

Similarly, the Bible describes God as merciful, loving, jealous, invisible, powerful, everlasting, wise, knowledgeable, immaterial, and so on. These are *different* properties. Being invisible is not the same as being merciful. Air is invisible but it is not merciful.

Moreover, Christian orthodoxy states that there *are* distinctions within God: namely, the three persons of the Trinity. The Father, Son, and Spirit. These are *different* persons. Divine simplicity states that there are *no* distinctions within God.

The classical theist might object with 1 John 4.8: "God is love". Doesn't that verse prove that divine simplicity is true? Well, no. That verse clearly shouldn't be taken literally, for two reasons. First, it would be nonsense. Love is an attitude, a feeling, or a relation. If God is identical to love, then God is an attitude, a feeling, or a relation. But God is not any of those things; God is a personal being. Second, it would contradict the preceding verse, which states that "love is from God". If love is from God, and God is identical to love, then God is from God. But God is not from God. God doesn't come from God's self. God doesn't come from anything. God is the ultimate foundation of reality.

The classical theist might insist that we *must* take 1 John 4.8 literally. But that is false. Taking that verse literally would mean thinking that the author contradicted himself in two consecutive verses. And besides, the Bible contains other descriptions of God that are not to be taken literally. Psalm 18.8 describes smoke as rising from God's nostrils. But God (at the time Psalm 18.8 was written) did not have nostrils. God was a purely spiritual, incorporeal being.

Therefore 1 John 4.8 is clearly a non-literal way of saying that God provides the perfect, ultimate example of love. And this is what the context (1 John 4.7-11) is about anyway; it is about how God's love "was made manifest" by God's sending "his only Son into the world". Notice that this passage describes God as *loving* people and *acting* on behalf of them. This contradicts classical theism, which states that God is timeless and does not have accidental relations to the world. And so any attempt to use 1 John 4.8 to support classical theism is unpersuasive.

The classical theist might object that God has something similar to anger (call it 'anger*') and something similar to favor (call it 'favor*'), and *those* two things (anger* and favor*) are identical.[2] But this response just denies that God has anger and favor at all. So this response contradicts Psalm 30.5.

2. Divine Timelessness

The Bible is filled with verses in which God speaks to people (Ex 14.1), threatens judgement (Jer 1.16), expresses regret (Gen 6.6-7), goes and checks out certain situations (Gen 18.20-21), reacts to human events by changing God's course of action (Jonah 3.10), says that things didn't happen the way God thought they would (Jer 3.6-7), participates in back-and-forth conversations with humans (Gen 18.23-33), and promises that God will do certain things in the future (Gen 18.14). God also becomes incarnate as a human being who walks around and talks with people and reacts to certain situations in real time.

This is incompatible with the static, timeless, un-influenceable God that classical theism teaches. The Bible describes God as a personal creator who is involved with human affairs and participates in dynamic, two-way relationships with individuals and groups.

The Bible also explicitly teaches that God is temporal: "Holy, holy, holy is the Lord God Almighty,' who was, and is, and is to come" (Rev 4.8). The Bible teaches that God is *everlasting*—that is, that God has *always existed* and *will always exist*—not that God exists timelessly and statically. Sure, there are verses that imply that God does not *experience* or *think about* time the same way we do: "With the Lord a day is like a thousand years, and a thousand years are like a day" (2 Pt 3.8). It is not surprising that a non-physical, perfect, omnipotent, omniscient, everlasting being would experience time differently than we do. But it is an unjustified leap to infer from this that the Bible teaches that God exists in a static, timeless state.
Plus, the context of 2 Peter 3.8 concerns awaiting the day of judgement. The author seems to be arguing that God has no problem waiting a thousand years if that's what it takes for everyone to

be saved. The same sort of language seems to be used to describe Jacob: "So Jacob served seven years to get Rachel, but they seemed like only a few days to him because of his love for her" (Gen 29.20). This doesn't mean that Jacob is timeless.

Sure, one can say that all of those verses (and many more) are non-literal, but now you are just reinterpreting the Bible in order to support classical theism. Not only that, but as Ryan Mullins points out, you are reinterpreting the Bible *against the grain*—i.e., consistently going against the most plain reading of the text. I would think that as a Christian, the Bible would be your standard for truth, not a doctrine that developed out of Greek, Hindu, and Neoplatonist philosophies.

3. Divine Immutability

The Bible teaches that God became a human. God was previously not a human, but took on a human nature. God changed. God acquired a new intrinsic property which God previously did not have.

4. Divine Impassibility

The Bible describes God as feeling regret because of evil, being moved with compassion, relenting from judgement because of the words or deeds of humans, and granting people reprieves *in response to* their supplication (e.g., Hezekiah). The Bible doesn't paint a picture of a static, timeless, unchanging God, but a personal creator who lives in dynamic relationships with its creatures.

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[1] I owe this set of four definitions to Ryan Mullins.

[2] This idea is from Christopher Tomaszewski, from his dialogue with Joe Schmid.

The Bible and Calvinism

In this essay, I examine verses that appear to count against Calvinism and verses that appear to support Calvinism. Here I focus on the Calvinistic doctrine of *unconditional election*. I examine the Bible's teachings on two other Calvinistic doctrines—eternal security and particularism—in the next two essays. I discuss Romans 9 in "The Bible and Universalism".

1. Verses Appearing to Count Against Calvinism

Jn 3.16: "For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life". Given the presence of Calvinism, it appears that there are two main ways to interpret this verse and see what the author of the passage is trying to teach:

1. God loves all humans and wants them to have a genuine opportunity to be saved. People's sin, however, is separating them from God, and so God provided a way of atonement through the life and death of his Son. When someone hears about Jesus, they at least *might* have a genuine opportunity to repent and believe.
2. God loves only certain humans and chosen for them to be saved and for all other humans to suffer eternal conscious torment. God sent his Son to save only some humans by dying for only their sins. When someone hears the Gospel proclaimed to them, it is not up to them whether they believe or not, since God has already made that decision for them.

I would be shocked if I found out that the author of John were thinking along the lines of (2) when writing John 3.16, or even believed anything like (2).

Ezek 33.11: "'As surely as I live,' declares the Sovereign Lord, 'I take no pleasure in the death of the wicked, but rather that they turn from their ways and live. Turn! Turn from your evil ways! Why will you die, people of Israel?'" Given the presence of Calvinism, it appears that there are two main ways to interpret this verse and see what the author of the passage is trying to teach:

1. God takes no pleasure in the death of the wicked but rather desires that they turn from their ways and live. In general, God does not want wicked people to be separated from God but rather desires that they repent. God is frustrated that the people of Israel are not repenting; God wants to see them turn back to God.
2. God has decided that a large portion of the earth's population should be eternally separated from God and should suffer eternal conscious torment, with no choice in the matter and no opportunity to repent, turn from their ways, and live. God also decided for the people of Israel to turn away at this time; that choice was ultimately not up to them.

I would be shocked if I found out that the author of Ezekiel 33 was attempting to communicate anything like (2), or even believed anything like (2).

Lam 3.31-33: "For no one is cast off by the Lord forever. Though he brings grief, he will show compassion, so great is his unfailing love. For he does not willingly bring affliction or grief to anyone". This verse teaches that (1) no one is abandoned by God forever, and that (2) God does not willingly bring grief to anyone, at least not unless it is meant to restore or improve them. Calvinism teaches that (1) many people are abandoned by God forever, and that (2) God willingly brings grief to many people, and *not* in order to restore or improve them.

Gen 19.22-33: Abraham has a back-and-forth conversation with God in which Abraham dissuades God from destroying Sodom and Gomorrah until Lot and Lot's family cleared out. Now, in context, this passage shouldn't be taken *entirely* literally, since God is described as "going down" to earth to find out what is going on in Sodom and Gomorrah (19.21). So maybe we can grant that God knew all along that God would stay God's hand until Lot and Lot's family cleared out. But still, are we to believe that, throughout the entire conversation, Abraham was merely a conscious puppet? That every word Abraham said was not of his own (libertarian) free will, but was causally determined by God? That the entire dialogue was just a big act of pretend? Surely not. And yet that is what Calvinism implies.

Paul's burden toward unbelievers. Throughout Paul's surviving letters, Paul expresses that he feels a tremendous burden toward the lost, which he lives out by spending his life as a missionary. But on Calvinism, people are lost *because that's exactly what God wants*. God has *specifically chosen* for certain individuals to be eternally separated from God. So on Calvinism, it seems that Paul—who surely wants everyone to repent—is or at least *could be* desiring *directly against* the will of God, who does *not* want everyone to repent.

Acts 10.34, Rom 2.11: "God shows no partiality". This verse seems to count against unconditional election: if God shows no partiality—i.e., God is not a "respecter of persons"—then God doesn't "respect" certain persons by choosing them for eternal life and consigning the rest of humanity to eternal conscious torment.

Calvinists might object that such passages concern wealth, ethnicity, or social status: in saying that God "shows no partiality", such passages teach that God doesn't prefer people because of their wealth, ethnicity, or social status. This seems right, but it doesn't help the Calvinist's case. First of all, Calvinists are exclusivists and one-chancers. On their view, anyone who undergoes physical death without consciously accepting Jesus as their Lord and Savior is consigned to eternal conscious torment. That means that all the millions of people who never hear about Christ simply because they were born in the wrong geographical location, ethnic group, or wealth bracket are consigned by God to endless suffering. As the Calvinist Brian Schwertley points out,

> Why did Jesus Christ not pray and intercede for all men, but only for some (Jn. 17:9)? In Acts 9, Jesus Christ appears to Paul and turns a zealous persecutor of Christians into the greatest evangelist the world has ever known. Why doesn't God raise up thousands of apostle Pauls to spread the gospel throughout the earth? God certainly has the power to do so. But He does not.[1]

Even if the Calvinist says that God eventually *will* save people from every part of the world, that doesn't change the fact that millions of people in eastern Asia and the Western Hemisphere have, according to Calvinism, been sent off to hell; a fate which might have been avoided if they had been born closer to the Middle East. What's more, Calvinists believe that God *set it all up to play out this way*. Assuming that God didn't make a mistake, but intentionally set up the world so that Middle Eastern people would be far more likely to be saved, this is an *epitome* of partiality.

Second of all, let's ask *why* it would be morally wrong to show partiality. Why is it a *virtue* that God shows no partiality? Surely this isn't just some brute moral fact; surely there is an underlying moral principle behind the wrongness of partiality. Here is a guess: partiality is wrong because it is wrong to judge people based on things that are outside of their control. Well, on Calvinism, God judges people *solely* based on things that are outside of their control. So even a simple moral analysis still puts Calvinism in the wrong.

The Calvinist might respond that God doesn't send people to hell because of their geographical location, but because of their *sin*. Everyone deserves to be separated from God, and that's because of the *sins* they have committed. In choosing certain persons to be saved, God is having *mercy* on some, and merely giving the remainder of humanity their just desert.

But this response is problematic on three levels. First, I argue that the idea of a divine justice system in which people *deserve* to be separated from God is seriously problematic (see "The Atonement"). Second, on Calvinism, someone's sin is completely outside of their control, since they were born with a sin nature, they can do nothing to resist it or get rid of it, and all of their sinful choices are determined by prior factors completely outside of their control. Third, on Calvinism, election is *unconditional*. God doesn't take sin into account when deciding whom to save and whom to condemn. God's elective decree is in no way influenced by knowing that people were going to sin. Those sins merely serve as *justification* for God to condemn the people that God has *already*, *independently*, chosen to condemn. Sin *per se* is not a sufficient *reason* for God to condemn someone, since God saves plenty of people who sin.

Rom 11.7, 11-12: "Israel has not achieved what it was pursuing. The elect have achieved it, but the rest were hardened… have they [i.e., the rest] stumbled so as to fall? By no means! Now if their stumbling means riches for the world and if their loss means riches for gentiles, how much more will their full inclusion mean!" This passage plainly teaches that people who are not elect have an opportunity to be saved. This contradicts the Calvinistic doctrine of unconditional election.

1 Tim 2.1-4: "I urge that supplications, prayers, intercessions, and thanksgivings be made for everyone, for kings and all who are in high positions, so that we may lead a quiet and peaceable life in all godliness and dignity. This is right and acceptable before God our Savior, who desires everyone to be saved and to come to the knowledge of the truth."

This verse plainly teaches that God desires everyone to be saved and to come to the knowledge of the truth. Calvinists might object that it really just means "all types of people", but this is mistaken, since the passage states that God desires everyone to be saved.

2 Pet 3.8-9: "But do not ignore this one fact, beloved, that with the Lord one day is like a thousand years, and a thousand years are like one day. The Lord is not slow about his promise, as some think of slowness, but is patient with you, not wanting any to perish but all to come to repentance."

This verse plainly teaches that the Lord is not wanting any to perish but all to come to repentance. Calvinists might object that it's really just talking about the elect (understanding election in an individualistic, secret Calvinistic sense), but that's just reading Calvinism into the text. Calvinists might object that it's only talking about Peter's audience. But that can't be right, since Peter's audience is people who are already saved and "have received a faith as equally honorable as ours through the righteousness of our God and Savior Jesus Christ" (2 Pt 1.1). Peter wouldn't say that God wants people who are already repentant to come to repentance.

Matt 5.44: "Love your enemies". This command appears to be a glimpse into the heart of God. It would be bizarre and hypocritical for God to tell us to love our enemies, but then for God to also desire to endlessly torture just about everyone God created.

2. Verses Appearing to Support Calvinism

John 15.16: "You did not choose me, but I chose you. And I appointed you to go and bear fruit, fruit that will last, so that the Father will give you whatever you ask him in my name". This does not teach unconditional election to salvation; it is clear from the context that Jesus is talking to his disciples and how he chose them to bear fruit that will last. What is another thing that Jesus commanded to his disciples? To "go and make disciples of all nations" (Mt 28.19).

John 17.9: "I am praying for them. I am not praying for the world but for those whom you have given me, for they are yours". Taken out of context, and with a Calvinistic framework in mind, this verse is easily interpreted to mean that Jesus desires the salvation of only the elect and not of anyone else. But of course, it would be wrong to take this verse out of context. Verse 12 makes it clear that Jesus is talking about the disciplies (the Twelve minus Judas), and Jesus goes on to ask "not for these [the disciples] only, but also for those who will believe in me through their [the disciples'] word" (17.20), and also prays "that the world may believe that you have sent me" (17.20).[2]

Acts 9.1-8. Saul, on the road to Damascus, is interrupted by a blinding light and the voice of Jesus. Calvinists might use this passage to support either unconditional election or irresistible grace, the doctrine that every person who is saved is saved by an irresistible act of grace on the part of God. But this seems wrong, since there is no indication that Saul had no freedom to resist

God. The Gospels describe plenty of people who resist God even after seeing a divine miracle, or seeing God face-to-face.

Acts 13.48: "When the gentiles heard this, they were glad and praised the word of the Lord, and as many as had been destined for eternal life became believers". The word 'destined' [τεταγμένοι] is usually translated as 'appointed' or 'ordained', which certainly looks like God is selecting certain individuals for eternal life.

But there is another way to understand this passage. τεταγμένοι can also be translated as 'disposed'. In Acts 13, some of the gentiles in Paul's audience are not pagans or unregenerate, hard-hearted people, but people who already fear and worship God (Acts 13.16). Such people would naturally be more receptive to Paul's message, more so than pagans or calloused Jews. So by the time Paul preached to them in Acts 13, they *had already been disposed* to believe in Paul's message and receive it with a contrite heart.[3] Now, this doesn't have to be a "human-effort-only" type of event; God could have been working in those gentiles' hearts over some type period and preparing them for eternal life. This scenario does not imply a full-blown doctrine of unconditional election. With all this in mind, it seems that Acts 13.48 provides very weak, if any, evidence for unconditional election.

Rom 8.30: "And those He predestined, He also called; and those He called, He also justified; and those He justified, He also glorified". As Leighton Flowers points out, Paul appears to be talking about a group of chosen people from the past. After all, the verse is in the past tense, and Paul was perfectly capable of using future tense (as he does so in other verses such as Romans 8.17).[4]

Rom 9.13: As it is written, "I have loved Jacob, but I have hated Esau". Calvinists might use this verse to support unconditional election. But as before, there is another way to understand this passage. As Leighton Flowers points out,

> The term "hate" is sometimes an expression of choosing one over another, and does not literally mean "hatred." For instance, Jesus told Peter, "If anyone comes to me and does not hate his own father and mother and wife and children and brothers and sisters, yes, and even his own life, he cannot be my disciple" (Luke 14:26). No commentator worth his salt would suggest the term "hate" in Luke 14 is literal, otherwise he would be hard pressed to explain scripture's other teachings about loving and honor our parents. Instead, this passage is understood to mean that man must choose following God's will over the will of even the most beloved in one's life. Could the same hermeneutical principle be applied toward understanding God choice of Jacob over Esau? Certainly, it could. God clearly chose one over the other for a noble purpose (Jacob became the lineage through whom the Christ would come).[5]

God did *not* choose Esau for a noble purpose. This doesn't mean that God literally hated Esau.

Eph 1.4-8: "Just as he chose us in Christ before the foundation of the world to be holy and blameless before him in love. He destined us for adoption as his children through Jesus Christ, according to the good pleasure of his will, to the praise of his glorious grace that he freely bestowed on us in the Beloved. In him we have redemption through his blood, the forgiveness of our trespasses, according to the riches of his grace that he lavished on us".

On a first reading, this passage might give the impression of God's having chosen specific individuals for salvation, to the exclusion of all others. But 'the elect' could also be defined in the looser sense of 'the group of all those who have placed their trust in Christ'. Paul and his audience obviously knew that they were members of this group. But more persons could join the group by placing their faith in Christ, and thus become part of the "chosen ones" who are destined for adoption, love, redemption, forgiveness, and so on. This group could be chosen beforehand in the same way that a person can found an organization without specifying every individual member. One could found a group, say the *Women and Children Advocates* (this is fictional), saying, "The Women and Children Advocates are destined to be *the* people who end the need for abortion, once and for all!" Such a saying does not specify exactly *which* individuals will be involved at any given time.

Of course, there might be *some* individuals in the elect whom God *has* specifically determined to be members in the group—perhaps Paul and Peter. But this does not imply that God has determined *every* individual's membership. Similarly, being omniscient, God might know that some persons will simply never accept Christ, and so never join the elect. But that does not imply that God *desires* or *causally determines* them to never join.

2 Tim 1.8-10: "Do not be ashamed, then, of the testimony about our Lord or of me his prisoner, but join with me in suffering for the gospel, in the power of God, who saved us and called us with a holy calling, not according to our works but according to his own purpose and grace, and this grace was given to us in Christ Jesus before the ages began, but it has now been revealed through the appearing of our Savior Jesus Christ, who abolished death and brought life and immortality to light through the gospel". I do not see how this verse teaches that God has selected to eternally save certain people and to eternally damn others. If anything, the author here is talking about how God has saved the author and his audience and has called them to the holy calling of spreading the Gospel to the world.

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[1] Brian Schwertley, "Sovereign Grace: An Examination of the Five Points of Calvinism" (2007). It appears that this paper has been removed from its original website (reformed.com). Please send me an email at sitecubing@gmail.com if you would like me to send it to you.

[2] Isak Lee, "Another Misused Verse to Defend Limited Atonement: John 17:9" (2014), *leesomniac*.

[3] Leighton Flowers, "Does Acts 13:48 Support Calvinism?", *Soteriology 101* and Brian Abasciano, "James White's Faulty Treatment of the Greek and Context of Acts 13:48", *Society of Evangelical Arminians* (2015).

[4] Leighton Flowers, "Romans 8:28-30: Foreknowledge and Predestination", *Soteriology 101*.

[5] Leighton Flowers, "Does God Hate the Unborn?", *Soteriology 101*.

The Bible and Apostasy

Does the Bible teach *eternal security*, the doctrine that it is impossible for those in Christ to apostatize—i.e., to fall away from the faith and be cut off from Christ? Or does the Bible teach that apostasy is possible? Let us take a look. I have italicized key phrases that either seem to explicitly teach the possibility of apostasy or at least would be very strange if the biblical authors thought that apostasy was impossible.

1. Verses Supporting the Possibility of Apostasy

- 1 Tim 4.1: "Now the Spirit expressly says that in later times some will *depart from the faith* by devoting themselves to deceitful spirits and teachings of demons". One can only *depart* from the faith if one is *part* of the faith.

- Heb 6.4-6: "For it is impossible, in the case of those who have once been enlightened, who have tasted the heavenly gift, and *have shared in the Holy Spirit*, and have tasted the goodness of the word of God and the powers of the age to come, and then *have fallen away*, to *restore them again to repentance*, since *they are crucifying once again* the Son of God to their own harm and holding him up to contempt."

- Heb 3.6, 12: "But Christ is faithful as the Son over God's house. And we are his house, *if indeed we hold firmly to our confidence and the hope in which we glory*. … Take care, brothers, lest there be in any of you an evil, unbelieving heart, leading you to *fall away from the living God*."

- James 5.19-20: "My brothers, if anyone among you *wanders from the truth* and someone *brings him back*, let him know that whoever brings back a sinner from his wandering will save his soul from death and will cover a multitude of sins". This makes abundantly clear the possibility of apostasy. James is not talking about a mere period of doubt or rebellion that someone goes through while remaining a true believer. James says that this wandering leads to "death" of the "soul". And the wanderers were true believers: they wandered "from the truth" and they could be brought "back."

- John 15.1-4: "I am the true vine, and my Father is the gardener. *He cuts off every branch in me* that bears no fruit … *Remain in me*, as I also remain in you. … If you *do not remain in me*, you are like a branch that is thrown away and withers; such branches are picked up, thrown into the fire and burned". Again it is unmistakable: John is talking about true believers, people who were, in Jesus's words, "in me" and whom God "cuts off."

- 1 Thess 3.5: "For this reason, when I could bear it no longer, I sent to learn about your faith, for fear that somehow the tempter had tempted you and our labor would be in vain". Why would Paul be fearful if he believed in eternal security?

- Col 1.22-23: “But now he has reconciled you by Christ’s physical body through death to present you holy in his sight, without blemish and free from accusation—*if you continue in your faith, established and firm, and do not move from the hope held out in the gospel*.” Why would the author of Colossians mention this final conditional if it’s literally *impossible* for any Christian to apostatize, if perseverance is a given?

- Gal 5.1-4: “For freedom Christ has set us free; stand firm therefore, and *do not submit again to a yoke of slavery*. Look: I, Paul, say to you that if you accept circumcision, Christ will be of no advantage to you. … You are severed from Christ, you who would be justified by the law; you have *fallen away from grace*.”

- Heb 2.1-3: “Therefore we must pay much closer attention to what we have heard, lest we *drift away from it*. … How shall we escape if we neglect such a great salvation?”

- Heb 10.26-29, 32: “For if *we* willfully persist in sin after having received the knowledge of the truth, *there no longer remains a sacrifice for sins* but a fearful prospect of judgment and a fury of fire that will consume the adversaries. Anyone who has violated the law of Moses dies without mercy ‘on the testimony of two or three witnesses.’ How much worse punishment do you think will be deserved by those who have spurned the Son of God, profaned the blood of the covenant *by which they were sanctified*, and outraged the Spirit of grace? … But recall those earlier days when, *after you had been enlightened*”. Here, the author uses *we* to indicate the people at risk of apostasy. The author says that such people have *received the knowledge of the truth*, that they have been *sanctified* by the blood of the covenant, and that they had been *enlightened*. The author is clearly talking about true believers who are at risk of apostasy.

- 2 Pet 2.20-21: “If they have *escaped the corruption of the world by knowing our Lord and Savior Jesus Christ* and are *again entangled in it and are overcome*, they are worse off at the end than they were at the beginning. It would have been better for them not to have *known the way of righteousness*, than to have *known it* and then to *turn their backs* on the sacred command that was passed on to them”. Once again, this verse can only be about true believers (real or hypothetical) who have fallen away. This verse (and all the others above) make no sense if the authors thought that apostasy wasn’t possible.

- 2 John 2.8-9: “Watch out that *you do not lose what we have worked for*, but that you may be rewarded fully. Anyone who runs ahead and does not *continue* in the teaching of Christ does not have God; whoever continues in the teaching has both the Father and the Son”. The words *we* and *continue* indicate that the people being addressed are true believers. One cannot continue in something that one was never a part of.

- Rom 11.19-23: “You will say, ‘Branches were broken off so that I might be grafted in.’ That is true. They were broken off on account of unbelief, but you stand on account of belief. So do not become arrogant, but be afraid. For if God did not spare the natural branches, neither will he spare you. Note then the kindness and the severity of God: severity toward those who have

fallen but God's kindness toward you, if you continue in his kindness; otherwise you also will be cut off. And even those of Israel, if they do not continue in unbelief, will be grafted in, for God has the power to graft them in again". This passage teaches two things so plainly that it is difficult to see how Paul could have been any clearer: (1) People who were formerly believers but who *stop* believing are cut off from Christ *because* of their unbelief. (2) People who were formerly unbelievers but who *start* believing are grafted in to Christ *because* of their belief. This directly contradicts eternal security.

2. Verses Against the Possibility of Apostasy

- John 10.27-28: "My sheep listen to my voice; I know them, and they follow me. I give them eternal life, and they shall never perish; no one will snatch them out of my hand". This verse does seem to teach eternal security. However, as William Lane Craig has pointed out, what if the sheep decide to *jump* out of Jesus's hand? What if they decide not to be sheep anymore? I am not sure, but perhaps the "eternal life" and the promise to "never perish" that Jesus gives the sheep is *conditional* upon their continuing in faith.

- Eph 1.13: "In him you also, when you had heard the word of truth, the gospel of your salvation, and had believed in him, were marked with the seal of the promised Holy Spirit". This passage also seems to teach eternal security. Again though, I wonder if the "seal of the promised Holy Spirit" is conditional upon continuing in faith—might the seal be broken if the believer apostatizes? It seems that the author of Hebrews would have interpreted it that way.

- 2 Tim 1.12: "I am not ashamed, for I know the one in whom I have put my trust, and I am sure that he is able to guard the deposit I have entrusted to him". This verse seems weaker, since it clearly leaves open the possibility that even if God guards the deposit, the author of 2 Timothy might not hold up *his* end of the bargain.

- 1 John 2.19: "They went out from us, but they did not belong to us, for if they had belonged to us they would have remained with us". This verse seems to imply that true believers persevere until death, since it says "if they had belonged to us they would have remained with us". Perhaps this doesn't apply to all Christians at all times?

- Luke 10.20: "Rejoice that your names are written in heaven". Based on my religious background, it seems that such writings are permanent, but perhaps they are not? Assuming that this is a literal account of particular persons as opposed to something figurative, perhaps someone's name might be *erased* if they leave the faith.

- Acts 11.18: "Even to Gentiles God has granted repentance that leads to life". This verse seems to leave open the possibility that if a true believer becomes unrepentant, they will lose that life.

- Eph 2.8-9: "For it is by grace you have been saved, through faith—and this is not from yourselves, it is the gift of God—not by works, so that no one can boast". This passage, to me,

clearly leaves open the possibility that our salvation is conditional upon our faith. If we don't have faith, or if we stop having faith, then we are not saved. The same goes for Acts 15.11.

- 1 Peter 1.23: "For you have been born again, not of perishable seed, but of imperishable, through the living and enduring word of God". Taken literally, this seems to clearly teach eternal security. But the idea of a "seed" seems figurative, and if that's the case, I again wonder if being "born again" is conditional upon faith.

- Romans 8.30: "And those whom he predestined he also called, and those whom he called he also justified, and those whom he justified he also glorified". As Leighton Flowers points out, it seems that Paul is talking about a group of chosen people from the past. After all, the verse is in the past tense, and Paul was perfectly capable of using future tense (as he does so in other verses such as Romans 8.17).[1]

3. Conclusion

By my count, there are 11 verses that clearly teach or imply that apostasy is possible. By contrast, I see only 5 verses that teach that apostasy is impossible. Unless there is a contradiction, we should conclude that overall, the Bible teaches that apostasy is possible. I personally think that there *is* a contradiction—it seems that Hebrews simply disagrees with those five verses.

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[1] Leighton Flowers, "Romans 8:28-30: Foreknowledge and Predestination", *Soteriology 101*.

The Bible and Universalism

In this essay, I examine passages that appear to teach *universalism* (the view that everyone will eventually be saved), passages that appear to indirectly support universalism, passages that appear to teach *eternal conscious torment* (the view that everyone who is not eventually saved will be endlessly separated from God), and passages that appear to teach *annihilationism* (the view that everyone who is not eventually saved will eventually cease to exist).[1] Note that, if the biblical support for and against universalism is roughly balanced, then the philosophical case for universalism (see "Defending Universalism") would break the tie.[2]

1. Passages that Appear to Teach Universalism

John 12.32: "And I, when I am lifted up from the earth, will draw all people to myself." One might object that, at the moment when each person is drawn to Christ, they have a choice as to whether to accept or reject him.[3] This seems reasonable, although it doesn't entail that a rejection would be an irreversible one.

Acts 3.19-21: "Repent, therefore, and turn to God so that your sins may be wiped out, so that times of refreshing may come from the presence of the Lord and that he may send the Messiah appointed for you, that is, Jesus, who must remain in heaven until the time of universal restoration that God announced long ago through his holy prophets."

Rom 3.23-24: "All have sinned and fall short of the glory of God, and all are justified freely by his grace through the redemption that came by Christ Jesus."

Rom 5.18: "Then as one man's trespass led to condemnation for all men, so one man's act of righteousness leads to acquittal and life for all men. For just as through the disobedience of the one man the many were made sinners, so also through the obedience of the one man the many will be made righteous". There is a clear parallel between the 'all' of Adam and the 'all' of Christ. The phrase 'the many' doesn't count against this; it is merely a comparison between "the one" and "the many", illustrating how the act of one person can affect many people.

Rom 8.19-21: "For the creation waits in eager expectation for the children of God to be revealed. For the creation was subjected to frustration, not by its own choice, but by the will of the one who subjected it, in hope that the creation itself will be liberated from its bondage to decay and brought into the freedom and glory of the children of God."

Rom 11.32: "For God has imprisoned all in disobedience so that he may be merciful to all". There is no reason to limit 'all' to either a specific group of people, or "all without distinction"—what is that supposed to mean, anyway? There is no suggestion here that Paul is merely talking about a few people from each nation.[4] Adding that in would be an extrabiblical premise. Plus, it is simply implausible. If God were merciful on only three people from each country, would we say that God was merciful on all? No, not in any reasonable sense.

Rom 11.36: "For from him and through him and to him are all things". This would be a little strange to say if a large portion of created beings will endlessly and unrepentantly continue to rebel against God.

Rom 14.11: "For it is written, 'As I live,' says the Lord, 'every knee shall bow to me, and every tongue shall confess to God'". One might object that this verse merely says that God *desires* for every knee to bow, similar to how the ten commandments use the future tense to express God's prescriptive will.[5] This seems right, although it is surely more than a passive desire: it is something that God is actively planning to accomplish. In Isaiah 45.22-24 (the passage Paul was quoting), God *swears an oath* that every knee shall bow and every tongue confess:

> Turn to me and be saved, all the ends of the earth! For I am God, and there is no other. By myself I have sworn; from my mouth has gone out in righteousness a word that shall not be revoked: 'To me every knee shall bow, every tongue shall swear allegiance.' "Only in the Lord, it shall be said of me, are righteousness and strength; to him shall come and be ashamed all who were incensed against him."

This passage makes clear that God desires for everyone to be saved and is acting to bring that about. It seems reasonable to think that God expects to succeed. Even those who are angry at God will eventually "come and be ashamed". This passage also dispenses with the objection that some of the confessors are not being genuine but are merely going through the motions with hardened hearts. Isaiah explicitly says that every tongue will *swear allegiance* to God. This passage also rules out the objection that God is merely talking about people grudgingly acknowledging God without being saved, or merely acknowledging Jesus's lordship in the way that demons sometimes do,[6] since Isaiah is explicitly talking about salvation.

1 Cor 15.22: "For as in Adam all die, so also in Christ shall all be made alive". As Keith DeRose points out, the phrase 'in Christ' is not a delimiter for the word 'all', but rather a description of *how* all are made alive: they are made alive in Christ.[7] This makes sense of the first part of the verse, by describing *how* everyone dies: they die because they are in Adam.

1 Cor 15.25-28: "For he must reign until he has put all his enemies under his feet. The last enemy to be destroyed is death. For he 'has put everything under his feet.' … When he has done this, then the Son himself will be made subject to him who put everything under him, so that God may be all in all". It is difficult to see how death could be destroyed, how all of God's enemies could be under God's feet, and how God could be "all in all" if there are still people who are eternally rebelling and suffering in hell, separated from God.

Eph 1.9-10: "He has made known to us the mystery of his will, according to his good pleasure that he set forth in Christ, as a plan for the fullness of time, to gather up all things in him, things in heaven and things on earth."

Col 1.19-20: "For in [Christ] all the fullness of God was pleased to dwell, and through him to reconcile to himself all things, whether on earth or in heaven."

1 Tim 4.9-10: "We have put our hope in the living God, who is the Savior of all people, and especially of those who believe". As Brett says, "Notice that God is the *Savior of all people.* The title of Savior can only apply if He indeed saves".[8] The verse doesn't say, "God is the *potential* Savior of all people."

Titus 2.11: "For the grace of God has appeared, bringing salvation to all men". One might respond that the verse can be reordered to say "For the grace of God has appeared to all men, bringing salvation". But this appears unlikely, based on the word order of the original Greek; the phrase 'to all men' appears *immediately* after 'bringing salvation', six words later than 'has appeared'.[9]

Phil 2.9-11: "For this reason also, God highly exalted Him, and bestowed on Him the name which is above every name, so that at the name of Jesus every knee will bow, of those who are in heaven and on earth and under the earth, and that every tongue will confess that Jesus Christ is Lord, to the glory of God the Father". Note the inclusion of people *under the earth*—i.e., people in hell. One might object that these confessions of Christ's Lordship are grudging or unsubmitting. But there is no hint of this in the passage. In addition, "No one speaking by the Spirit of God will curse Jesus, and no one can say Jesus is Lord, except by the Holy Spirit" (1 Cor 12.3). Moreover, the passage states that these confessions occur "to the glory of God the Father". How would it glorify God to force people to kneel and say grudgingly, maybe even disingenuously, that Christ is Lord?

Rev 21.3-5: "'Behold, the dwelling place of God is with mortals. He will dwell with them, and they will be his people, and God himself will be with them as their God. He will wipe away every tear from their eyes, and death shall be no more, neither shall there be mourning, nor crying, nor pain anymore, for the former things have passed away.' … And he who was seated on the throne said, 'Behold, I am making all things new'". Notice that Revelation doesn't say that the dwelling place of God is with "some people"—it is with *mortals*, period. Also notice that God doesn't say, "Behold, I am making *some* things new". God says, "Behold, I am making *all* things new."

2. Passages that Appear to Indirectly Support Universalism

1 Chr 16.34: "Oh give thanks to the LORD, for he is good; for his steadfast love endures forever!" How can this verse can be true in any sense if God decides to give up on people?

Psalm 30.5: "For his anger is but for a moment; his favor is for a lifetime". Combined with the view expressed elsewhere in the Bible that even a wicked person will be redeemed if he turns from his wicked ways (e.g., Ezek 18.27), this verse seems to fit better with the picture of God

continually reaching out to lost souls rather than burning in endless anger against them and never again giving them any opportunity to improve.

Job 42.4: "I know that you can do all things; no purpose of yours can be thwarted". Combine this with God's stated desire for all to be saved (1 Tim 2.1-4 and 2 Pet 2.8-9), and you have a strong hint toward universalism.

Lam 3.31-33: "For no one is cast off by the Lord forever. Though he brings grief, he will show compassion, so great is his unfailing love. For he does not willingly bring affliction or grief to anyone". This paints a clear and literal picture of a God who is always willing to reconcile the humble to himself, and who never permanently gives up on anyone.

Matt 18.21: "Then Peter came and said to him, 'Lord, if my brother or sister sins against me, how often should I forgive? As many as seven times?' Jesus said to him, 'Not seven times, but, I tell you, seventy-seven times'". If this is any indication of the heart of God, then it seems to paint a picture of a God who will *always* forgive us if we repent and humble ourselves before God.

Matt 18.34-35: "And in anger his lord handed him over to be tortured until he would pay his entire debt. So my heavenly Father will also do to every one of you, if you do not forgive your brother or sister from your heart". This seems to paint a picture of the *purpose* of God's suffering not as retributive or "getting revenge" on sinners by torturing them forever, but as a *forward-looking* and *temporary* punishment aimed at righting something that is wrong. Obviously, Protestant Christians will not accept that people go to hell in order to pay off a debt, so they won't accept *that* part of the parable as literally true. A much more plausible explanation is that God sends people to hell for the purpose of rehabilitation and restoration.

Luke 15.4-9: "Suppose one of you has a hundred sheep and loses one of them. Doesn't he leave the ninety-nine in the open country and go after the lost sheep until he finds it? And when he finds it, he joyfully puts it on his shoulders and goes home. Then he calls his friends and neighbors together and says, 'Rejoice with me; I have found my lost sheep.' I tell you that in the same way there will be more rejoicing in heaven over one sinner who repents than over ninety-nine righteous persons who do not need to repent". Here, the Bible clearly teaches that there is unique value in the event of someone's crossing over from death to life, and this value does *not* disappear in the perspective of those in heaven. This at least *opens the possibility* that God might see value in continuing to try to rescue people from hell rather than simply being content with those who are already righteous and in heaven. And those who are in heaven would naturally feel the same way.

2 Cor 5.14-19: "For the love of Christ urges us on, because we are convinced that one has died for all; therefore all have died. And he died for all, so that those who live might live no longer for themselves but for the one who for their sake died and was raised. From now on, therefore, we regard no one from a human point of view; even though we once knew Christ from a human point of view, we no longer know him in that way. So if anyone is in Christ, there is a new

creation: everything old has passed away; behold, the new has come into being! All this is from God, who reconciled us to himself through Christ and has given us the ministry of reconciliation; that is, in Christ God was reconciling the world to himself, not counting their trespasses against them, and entrusting the message of reconciliation to us".

Eph 4.7-10: "But each of us was given grace according to the measure of Christ's gift. Therefore it is said, 'When he ascended on high, he led captive a host of captives; he gave gifts to his people.' (When it says, 'He ascended,' what does it mean but that he had also descended into the lower parts of the earth? He who descended is the same one who ascended far above all the heavens, so that he might fill all things.)" This seems to suggest that people who have died can receive another chance at salvation. I will point out, however, that an alternate translation to 'he led captive a host of captives' is 'he made captivity itself a captive', which is definitely less clear.

3. Passages that Appear to Teach Particularism or Eternal Conscious Torment

Isaiah 6.9-10: "Be ever hearing, but never understanding; be ever seeing, but never perceiving. Make the heart of this people calloused; make their ears dull and close their eyes. Otherwise they might see with their eyes, hear with their ears, understand with their hearts, and turn and be healed". First of all, this verse seems like it could be interpreted as a prophecy of what is going to happen; *not* as God actually *making* the people unrepentant. Second of all, and more to the point, Isaiah doesn't teach that this state will last forever; the very next few verses tell of a future destruction event that ends the current state. Therefore neither this passage nor its quotation in Mark 4.12 seems to be evidence against universalism.

Matt 7.13-14: "Enter through the narrow gate; for the gate is wide and the way is broad that leads to destruction, and there are many who enter through it. For the gate is small and the way is narrow that leads to life, and there are few who find it". The word translated 'destruction' [ἀπώλειαν], which can also mean ruin, loss, or being completely severed, does not mean either annihilation or eternal conscious torment. Based on the immediate context of treating others the way you want to be treated (Matt 7.12), it seems that Jesus is talking about how few people are *currently* finding life (it is in the present tense, after all) because of their self-centeredness. Plus, those who are destroyed can be restored, such as Moab (Jer 47.47). Therefore neither this passage nor other passages referring to destruction (e.g., 2 Pet 2-3) entail *permanent* destruction.

Matt 10.32-33: "Everyone, therefore, who acknowledges me before others, I also will acknowledge before my Father in heaven, but whoever denies me before others, I also will deny before my Father in heaven". Peter denied Jesus but was reinstated.

Matt 12.30-32 (cf. Mark 3.28-29) speaks of blasphemy against the Holy Spirit as an "unforgivable" sin, an "eternal" sin that will not be forgiven in this or the next age. But the word 'eternal' is inaccurate; the Greek reads εἰς τὸν αἰῶνα, which means 'to the age' or 'age-long'. And so the passages teach that those who commit the unforgivable sin, instead of being *forgiven*, will be *punished* in the age to come. (Maybe their punishment will last the entire age to come, in

which case there could be a third age, as Paul hints at when saying "in the coming ages [αἰῶσιν]" (Eph 2.7).) This is consistent with saying that, once their punishment is complete, they have an opportunity to repent and enter the kingdom.

Matt 25.1-13 tells the parable of the ten virgins, five of whom foolishly neglect taking oil with them to meet the bridegroom, and as a result are shut out and told, "Truly I tell you, I do not know you". Now, this certainly implies that the virgins do not get to participate in the wedding banquet, and this is severely unfortunate. This verse *does* give me the impression of a final rejection. However, given the fact that it is just a parable, and that it does not *say* that the rejection is endless, and the Bible *does* say that God does not cast off anyone forever (Lam 3.31), it does not seem right to conclude that all unbelievers are consigned to endless, inescapable torment, or that an unbeliever who gets hit by a car is consigned to endless torment.[10]

Matt 25.46: "Then they will go away to eternal punishment, but the righteous to eternal life". The word translated 'eternal' [αἰώνιον] also means 'of the age' or 'pertaining to the age'; derived from 'αἰών' (i.e., *aeon*) which "*can* sometimes mean a period of endless duration, but which more properly, throughout the whole of ancient and late antique Greek literature, means 'an age,' or 'a long period of time' of indeterminate duration".[11] (The same goes for the Hebrew word עוֹלָם used in Daniel 12.2.[12]) And, regardless of the definition, the Bible teaches that even an αἰώνιον age can be ended and overcome by God; the prophet Jonah said of his time inside the fish: "I descended into the earth, the bars of which are everlasting [αἰώνιον] barriers; yet let my life ascend from corruption, O Lord, my God" (2.7).[13]

In addition, the word translated 'punishment' [κόλασιν] is often used in classical Greek as well as the New Testament to refer to corrective punishment; an original definition was "checking the growth of trees".[14] Notice how drastically the translation of the verse would change if we incorporate the literal meaning of αἰώνιον and this alternate meaning of κόλασιν: Matt 25.46: "Then they will go away to the corrective punishment of the age to come, but the righteous to the life of the age to come". If this is right, then a straightforward implication of this verse is that those who are cast outside are punished until they are rehabilitated and can enter the kingdom.

Finally, those who believe in salvation by grace through faith would not want to press the literality of the parable, since the parable explicitly teaches that people are sent to either the kingdom or the fire *because of* their good or bad works, not their faith (25.34-36, 41-43).[15]

Luke 12.45-48: "But if that slave says to himself, 'My master is delayed in coming,' and begins to beat the other slaves, men and women, and to eat and drink and get drunk, the master of that slave will come on a day when he does not expect him and at an hour that he does not know and will cut him in pieces and put him with the unfaithful. That slave who knew what his master wanted but did not prepare himself or do what was wanted will receive a severe beating. But the one who did not know and did what deserved a beating will receive a light beating. From everyone to whom much has been given, much will be required, and from the one to whom much has been entrusted, even more will be demanded." First of all, the metaphor of cutting the servant in pieces is obviously not to be taken literally, since it would then be odd to place the

servant—now a bunch of dismembered body parts—with the unfaithful. Second of all, when we reflect on how the severity of each beating is moderated by the honest ignorance of the transgressor, does it really seem plausible that some people will be beaten over and over again endlessly? What would be the purpose of that?

Luke 16.19-31 tells the story of the rich man and Lazarus. Proponents of eternal conscious torment might point to the fact that Abraham says that "a great chasm has been fixed, so that those who might want to pass from here to you cannot do so, and no one can cross from there to us" (19.26). Well, first of all, this is a *parable*, which usually has a central theological teaching and should not pressed on all the details. Second of all, the passage does not say that this is an *endless* state. Third, people have pointed out over and over in sermons that the rich man in hell is unrepentant and stubborn. Would we expect things to have been the same if the rich man had been genuinely repentant? Fourth, as mentioned above, there are biblical indications of Jesus proclaiming to those in hell (1 Pet 3.18-20) and rescuing persons from hell (Eph 4.8-10).

John 3.36: "He that believes on the son has everlasting life; and he that believes not on the Son shall not see life, but the wrath of God abides on him". This does not teach that there will be persons eternally separated from God. Christians already accept that the wrath of God abides upon the wicked, but when one repents, then they are no longer under God's wrath.

John 8.21: "I go My way and you shall seek Me, and shall die in your sins; where I go, you cannot come". To quote from Louis Abbott: "Jesus was telling those to whom he spoke that He would be returning to His Father, but they could not go with Him there".[16] More to the point, Jesus is telling the Pharisees (see 8.13) that they will die in their sins, presumably because they have not accepted him. This doesn't mean they will suffer eternal conscious torment.

Rom 9.16-24:

> So it depends not on human will or exertion but on God who shows mercy. For the scripture says to Pharaoh, 'I have raised you up for this very purpose, that I may show my power in you and that my name may be proclaimed in all the earth.' So then he has mercy on whomever he chooses, and he hardens the heart of whomever he chooses. You will say to me then, 'Why then does he still find fault? For who can resist his will?' But who indeed are you, a human, to argue with God? Will what is molded say to the one who molds it, 'Why have you made me like this?' Has the potter no right over the clay, to make out of the same lump one object for special use and another for ordinary use? What if God, desiring to show his wrath and to make known his power, has endured with much patience the objects of wrath that are made for destruction, and what if he has done so in order to make known the riches of his glory for the objects of mercy, which he has prepared beforehand for glory—including us whom he has called, not from the Jews only but also from the gentiles?

There is nothing in this passage that implies that some persons will be annihilated or go through eternal conscious torment. As the passage makes clear, Paul is presenting a hypothetical ("What if God …") in order to illustrate that God can set up God's plan for salvation however God

pleases. It does not say that God has predestined some persons to eternal conscious torment. Moreover, ἀπώλειαν is used again here for 'destruction'.[17]
So, how *did* God set up God's plan for salvation? Paul answers this himself:

> What the people of Israel sought so earnestly they did not obtain. The elect among them did, but the others were hardened. … Did they stumble so as to fall beyond recovery? Not at all! Rather, because of their transgression, salvation has come to the Gentiles to make Israel envious. But if their transgression means riches for the world, and their loss means riches for the Gentiles, how much greater riches will their full inclusion bring! (Rom 11.7, 11-12)

So Paul says that Israel, who was hardened, will be fully included in the salvation. What else could Paul be saying here? If this wasn't clear enough, Paul says it again:

> Israel has experienced a hardening in part until the full number of the Gentiles has come in, and in this way all Israel will be saved. … Just as you who were at one time disobedient to God have now received mercy as a result of their disobedience, so they too have now become disobedient in order that they too may now receive mercy as a result of God's mercy to you. For God has bound everyone over to disobedience so that he may have mercy on them all. (Rom 11.25-26, 28-32)

Eph 1.4-8: "Just as he chose us in Christ before the foundation of the world to be holy and blameless before him in love. He destined us for adoption as his children through Jesus Christ, according to the good pleasure of his will, to the praise of his glorious grace that he freely bestowed on us in the Beloved. In him we have redemption through his blood, the forgiveness of our trespasses, according to the riches of his grace that he lavished on us". The fact that Paul and his audience—i.e., "we, who were the first to put our hope in Christ" (1.12)—were destined for adoption as God's children does not rule out the possibility that *everyone* is destined to be eventually adopted and brought into the kingdom. Indeed, the passage says this much, teaching that God's will is to "gather up all things in him, things in heaven and things on earth" (1.10).[18]

2 Thess 1.9: "They will be punished with everlasting destruction and shut out from the presence of the Lord and from the glory of his might". The word translated 'everlasting' is αἰώνιον.

Heb 6.4-6: "It is impossible for those who have once been enlightened, who have tasted the heavenly gift, who have shared in the Holy Spirit, who have tasted the goodness of the word of God and the powers of the coming age and who have fallen away, to be brought back to repentance". This verse does seem to teach that people can apostatize and then never be brought back. But this verse is still consistent with universalism, since it never says that any person *will* fall away. And also, following the evangelical rule of interpreting Scripture with Scripture, James 5.19-20 clearly teaches that it *is* possible to bring back someone who "wanders from the truth", and Mark 10.24-27 teaches that although it is impossible with *man* to save the hard-hearted, "all things are possible with God". So unless we want to say that Hebrews 6 contradicts James 5 and Mark 10, it seems clear that we should interpret Hebrews 6 in light of those two passages.

Heb 9.27: "And just as it is appointed for mortals to die once and after that the judgment". This passage doesn't say that the judgment is immediate. Indeed, most people who believe in this passage believe that there is an intermediate period of time between death and the final judgment. What the passage clearly teaches is that mortals will not be reincarnated and then die a second time before the judgment. In addition, as Brett says:

> The point of the passage is to explain that Jesus only had to die once, not multiple times, *because his sacrifice was enough to pay for all sin!* In the same way that we only have to die once, Christ too only had to die once to pay for the sins of the world. The final sentence further explains his second coming in which he won't have to deal with sin any longer. Why? Because he already has atoned for it! When he returns, he will be coming to save us.[19]

Moreover, sometimes people *do* die twice (Lazarus, the girl Jesus resurrected, etc.).

1 Pet 3.18-20: "He was put to death in the body but made alive in the Spirit. After being made alive, he went and made proclamation to the imprisoned spirits—to those who were disobedient long ago when God waited patiently in the days of Noah while the ark was being built". This at least *suggests* that those who die before accepting Christ are offered an additional chance.

Rev 20.14-15, 21.8: "Then Death and Hades were thrown into the lake of fire. This is the second death, the lake of fire. And whosoever was not found written in the book of life was cast into the lake of fire. … But as for the cowardly, the faithless, the polluted, the murderers, the sexually immoral, the sorcerers, the idolaters, and all liars, their place will be in the lake that burns with fire and sulfur, which is the second death". Again, there is no indication that this second death is a place of eternal conscious torment or annihilation. Apart from our biases, it is just as easily a fire of purification.

In addition, Revelation states that people who are outside the gates can wash their robes and enter the city: "Blessed are those who wash their robes, that they may have the right to the tree of life and may go through the gates into the city" (22.14). So who exactly is outside the gates? The next verse answers this: it is the people already described in 21.8: "Outside are the dogs, those who practice magic arts, the sexually immoral, the murderers, the idolaters and everyone who loves and practices falsehood" (22.15).

Rev 21.24-26: "The nations will walk by its light, and the kings of the earth will bring their glory into it. Its gates will never be shut by day—and there will be no night there. People will bring into it the glory and the honor of the nations. But nothing unclean will enter it, nor anyone who practices abomination or falsehood, but only those who are written in the Lamb's book of life". The image of a "book of life" does pose a problem for universalism. But let's examine the concept carefully. "The book of life" seems to admit of at least three possible interpretations:

- *Decision:* The book reveals ahead of time the persons whom God has irreversibly *decided* will be saved, and (by process of elimination) whom God has *decided* will be tortured endlessly. Thus, names are never added to the book.
- *Prediction:* The book merely *predicts* ahead of time who will be saved and who will be tortured endlessly; God hasn't *decided* this matter, but (being omniscient) knows the future nonetheless. Thus, names are never added to the book.
- *Response:* Names are added to the book in *response* to people's *choices* to quit being immoral/murderous/idolatrous/etc. and to wash their robes. Thus, the book records who is *currently* saved and eligible to enter the city (or has already entered).

I've argued on philosophical and biblical grounds that God desires all to be saved, ruling out the Decision view. But setting that aside, adopting any of the three models for no reason is just a theological assumption. Moreover, Revelations 20 and 21 appear to teach that whether one's name is in the Lamb's book of life is determined by their choice of how they live; the passage directly contrasts those who are intentionally sinful with those whose names are in the book.

Rev 22.19: "And if any man shall take away from the words of the book of this prophecy, God shall take away his part out of the book of life, and out of the holy city, and from the things which are written in this book". This verse does seem to teach that some people are eternally separated from God. But it doesn't explicitly say that, and the suggestion is outweighed by other clear biblical teachings: that people who lose their place among God's people can regain it (Rom 11.21-24) and that the gates of the holy city will never be shut (Rev 21.25), suggesting that people who repent and accept Jesus as Lord can enter into the city.

4. Passages that Appear to Teach Annihilationism

Isaiah 66.23-24: "From new moon to new moon, and from Sabbath to Sabbath, all flesh shall come to worship before me, declares the LORD. And they shall go out and look at the dead bodies of the people who have rebelled against me, for their worm shall not die, their fire shall not be quenched, and they shall be an abhorrence to all flesh". This is an odd passage for two reasons. First, it says that "all flesh" shall worship God, but then says that there are some "dead bodies" who are obviously not included in the "all flesh". Second, it says that these bodies are "dead"—and dead bodies eventually decompose into dust, especially if they are being eaten and burned (suggesting annihilation), but then appears to teach that the worm is immortal and that the fire burns endlessly. Note also that Mark cites this imagery in Mark 9.47-48: "It is better for you to enter the kingdom of God with one eye than to have two eyes and to be thrown into Gehenna, where their worm never dies and the fire is never quenched."

William Barclay provides some context for the passage:

> Gehenna … means the Valley of Hinnom, a valley to the southwest of Jerusalem. It was notorious as the place where Ahaz had introduced the fire worship of the heathen God Molech, to whom little children were burned [2 Chr 28.2-4]. Josiah

> had stamped out that worship and ordered that the valley should be forever after an accursed place … it became the place where the refuse of Jerusalem was cast out and destroyed. It was a kind of public incinerator. Always the fire smoldered in it, and a pall of thick smoke lay over it, and bred a loathsome kind of worm which was hard to kill. … So Gehenna, the Valley of Hinnom, became identified in people's minds with all that was accursed and filthy, the place where useless and evil things were destroyed.[20]

So it appears that the passage does not teach eternal conscious torment, since the imagery of the immortal worm and fire are merely hyperbolic. (Mark 9.44-48 is *also* brimming with hyperbolic imagery of tying stones around people's necks and drowning them, cutting off one's own hands and feet, and gouging one's own eyes out—none of which anyone interprets literally.)

Now, does this passage teach annihilationism? Can dead bodies be resurrected? The answer, of course, is Yes. 1 Cor 15.26 teaches that death will be destroyed, and Daniel 12.2 teaches "And many of those who sleep in the dust of the earth shall awake, some to עוֹלָם life, some to shame and עוֹלָם contempt".

Ezek 8.16-18: "There, at the entrance of the temple of the LORD, … were about twenty-five men … prostrating themselves to the sun toward the east. Then he said to me, "Have you seen this, O mortal? Is it not bad enough that the house of Judah commits the abominations done here? Must they fill the land with violence and provoke my anger still further? … Therefore I will act in wrath; my eye will not spare, nor will I have pity, and though they cry in my hearing with a loud voice, I will not listen to them". This appears to be an image of God promising to physically destroy Israelites idolaters. A more liberal interpretation might be that this is Ezekiel issuing a warning to the Israelite idolaters to turn from their evil ways or else be destroyed. Neither interpretation entails that, after destruction, these persons will permanently cease to exist. I doubt that the author of Ezekiel had something like that in mind.

Matt 13.29-30: "[Do not try to pull up the weeds,] because while you are pulling the weeds, you may uproot the wheat with them. Let both grow together until the harvest. At that time I will tell the harvesters: First collect the weeds and tie them in bundles to be burned; then gather the wheat and bring it into my barn". Jesus explains the parable to the disciples a few verses later: at the end of the (present) age, "the Son of Man will send forth His angels, and they will gather out of His kingdom all stumbling blocks, and those who commit lawlessness, and will throw them into the furnace of fire; in that place there will be weeping and gnashing of teeth" (13.36-43). The verse does not say that the furnace is endless.

Matt 24.39-41: "[Just as] they knew nothing until the flood came and swept them all away, so, too, will be the coming of the Son of Man. Then two will be in the field; one will be taken, and one will be left. Two women will be grinding ... together; one will be taken, and one will be left". This verse appears to suggest that some persons will be destroyed ("taken") in a cataclysmic

event when the Son of Man comes. Again though, destruction need not be a permanent destiny, as has been pointed out numerous times in this essay.

More generally, As Brett points out, every verse in the Bible that uses the Greek word translated 'hell' (Mt 5.22, 5.29, 5.30, 18.9, Mk 9.42-44, 45, 47, Lk 12.5, Mt 10.28, 23.15, 23.33, Jas 3.6, 2 Pet 2.4) is actually referring to the "Valley of Hinnom" or "Gehenna", which was "a deep, narrow glen to the south of Jerusalem, where the idolatrous Jews offered their children in sacrifice to Molech".[21] The Bible never associates Gehenna with a place of being tormented endlessly.[22] (*Gehenna* [γέεννα, derived from גֵּי־הִנֹּם, 'Gê Hinnom' or the 'Valley of Hinnom'] is to be distinguished from *Hades* [ᾅδης]—i.e., the adobe of the dead, "a temporary state before the final resurrection and judgment",[23] understood as the ancient Greek equivalent of the Hebrew concept of *Sheol* [שְׁאוֹל].)

John 15.1-4: "I am the true vine, and my Father is the gardener. He cuts off every branch in me that bears no fruit … If you do not remain in me, you are like a branch that is thrown away and withers; such branches are picked up, thrown into the fire and burned". (See also Matt 7.19 for similar language.) Here the Bible teaches that Christians who stop believing will become unsaved and cut off from Christ. However, the Bible provides indications that this cutting off is not permanent. For example, Romans 11.17-24 teaches that branches that are broken off can and will be grafted back on.

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[1] See Bandy, "Religions", for a more comprehensive listing of different soteriological views.

[2] This is true regardless of whether one holds to inerrancy. The inerrantist universalist will say that all of the passages appearing to deny universalism should be interpreted in a way consistent with universalism. The non-inerrantist universalist might say that some of the passages appearing to deny universalism actually *do* deny universalism and so should be rejected.

[3] Thanks to Mary Lyons for this type of objection.

[4] Thanks to Keith DeRose for this insight.

[5] I owe this objection to Chris Date. See also the Keil and Delitzsch Biblical Commentary on the Old Testament.

[6] See Matthew 8.29. Thanks to Mary Lyons for this type of objection.

[7] Keith DeRose, "Universalism and the Bible".

[8] Brett, "Salvation for all people (Is it Biblical?)".

[9] See the interlinear version of Titus 2 provided by biblehub.

[10] Thanks to Josiah Bogue for bringing this passage to my attention, and to Brett for the response.

[11] David Bentley Hart, *The New Testament: A Translation* (Yale University Press, 2017), 538.

[12] Tim Hall, "Huddling In Dusty Corners: Christian Universalism and the Judgment Texts" (2020).

[13] Bradley Jersak, "Αἰώνιον, Eternal, Jonah & Jesus – Bradley Jersak" (2021).

[14] Brett, "Kolasin's Meaning", *Salvation for All*.

[15] Thanks to Keith DeRose for this point.

[16] Louis Abbott, *An Analytical Study of Words* (Bible Student's Press, 2018).

[17] I owe these two points to Brett, "Free Will vs. Determism", *Salvation for All*. See also "684. apóleia", *HELPS Word-studies*.

[18] I owe this point to Brett, "Free Will vs. Determism", *Salvation for All*.

[19] Brett, "Addressing Objections: We Die Once and Then the Judgment Argument", *Salvation for All*.

[20] William Barclay, *The Gospel of Matthew, Vol. 1* (Westminster, 1978), 141.

[21] Matthew Easton, "Entry for Gehenna", *Bible Study Tools*.

[22] Brett, "Is the Doctrine of hell Biblical?", *Salvation for All*.

[23] "86. hadés", *biblehub.*

The Creation Story

The Bible contains many different genres of literature: history (1 Chronicles, Acts), wisdom literature and poetry (Psalms, Ecclesiastes), ancient biography (the gospels), apocalypse (Daniel, Revelation), prophecy (Isaiah, Ezekiel), epistles (Romans, 1 Corinthians), and so on. Some of these genres are meant to be taken literally. For example, when Acts 27 states that Paul was in a shipwreck, it means that Paul was *literally* in a shipwreck.

But some of these genres are *not* meant to be taken literally. For example, the ten-horned beast in Revelation 13 is not meant to indicate a physical monster, but rather is a Jewish apocalyptic symbol of the Antichrist and his federation of ten kings.[1] When Psalm 18.8 states that God rode on the cherubim with smoke coming from his nostrils, that is a poetic image of how God destroyed the psalmist's enemies and saved the psalmist's life—it doesn't teach that God was literally breathing smoke out of his nose. Sometimes one genre can be embedded within another genre. For example, the gospel of Mark belongs to the category of ancient biography, but its main character—Jesus—frequently uses *parables*, which should *not* be read the same way as ancient biographies. Jesus also uses *hyperbole* (telling people to mutilate themselves, speaking of immortal worms, etc.). Other examples abound throughout the Bible.[2]

Now, what genre of literature is Genesis 1-11? We shouldn't just *assume* that it is literal history, since that would be placing man's word over God's word, imposing our modern, uneducated intuitions and biases about ancient literature onto Scripture. Instead of doing that, we should try to figure out what the Bible actually teaches. There is strong evidence that Genesis 1-11 should *not* be taken as purely literal history:

- The Hebrew word translated 'day' [יוֹם] does not necessarily mean a twenty-four–hour day. Even in Genesis, it does not always mean this. Genesis 2.4 states, "This is the history of the heavens and the earth when they were created, in the day [יוֹם] that the LORD God made the earth and the heavens". If taken literally, this contradicts Genesis 1.6-14, which states that it took 2-4 days for God to create the earth and the heavens, not just one day.
- Genesis 1.3 says that God created light and separated it from the darkness. But what does it mean to "separate" the light from the darkness? Light is *by nature* separated from darkness, since darkness is merely the absence of light. It seems *at least* as likely that this verse is providing a poetic account of the creation of light than that it is teaching that God literally created a bunch of stray photons and moving them into a big cluster in empty space.
- Genesis 1.5, 1.8, and 1.13 say that morning and evening occurred in succession. But how could this happen before the sun was created? For ancient people, morning and evening were surely defined *in reference* to the sun, so there could not be a morning without a rising sun. This indicates that these days were understood by the author to be non-literal.
- Genesis 1.11 says that on the third day, the land produced seed-bearing plants and fruit trees. But it takes more than a day for plants and fruit trees to grow. Are we to think that the author of Genesis imagined plants and trees shooting up in fast motion over the course of a single day?

The passage does *not* say that *God* created these plants out of nothing; it says that the *earth* produced them.[3]

- Genesis 1.9-10 entails that the "primordial waters of creation … drained away in 24 hours". But the author surely knew this was naturally impossible, especially since he writes that it took over 150 days for the Flood waters to drain enough for even "the tops of the mountains" to be visible. Again, there's no indication that the draining away was a divine act in either case.[4]
- Genesis 1 and 2 recount events in contradictory orders. Genesis 1 states that God created plants and animals before humans, but Genesis 2.5-2.7 states that "no shrub had yet appeared on the earth and no plant had yet sprung up" when God created Adam. Similarly, Genesis 2.18-19 states that God created animals *after* creating Adam, for the purpose of finding Adam a partner. The tense of Genesis 2.19 is "waw-consecutive (waw + imperfect verb), which is the standard narrative form for communicating narratival succession".[5]
- Genesis 2.7 states that God formed "a man from the dust of the ground and breathed into his nostrils the breath of life". This seems poetic rather than literal. What is the "breath of life"? If God had arranged some atoms to form a biologically complete human being, then that human would automatically be alive. Nothing more would need to be done. What, literally, would it mean for God to breathe the "breath of life" into the man?
- Genesis 4.13 states that Cain, after killing Abel and being punished by God, was afraid of being killed by other people, and God acknowledges Cain's fear. This strongly suggests that Cain was aware of other people already around. Cain's statement would be bizarre otherwise. But Genesis 4, taken literally, entails that there were no other people on earth other than Adam and Eve. This would have been obvious both to Cain and to the author of Genesis, and so this detail indicates, in the very least, that the timeline of Genesis 4 is not to be taken literally.
- The genealogies in Genesis, although certainly meant to include real people, should not be taken literally, for at least five reasons:
    1. The genealogies appear to be artifically abridged or otherwise modified in order to have exactly ten people. This happens elsewhere in ancient texts (Ruth, as well as "various Sumerian, Assyrian, and Babylonian king lists").[6]
    2. The genealogies are similar to Sumerian king lists in that they posit unrealistically long lifespans that progressively diminish in length after the Flood.
    3. The ages of the patriarchs seem to be derived from ancient Jewish numerological practices (such as making everyone's age a multiple of 5, or a multiple of 5 plus 7, or an arithmetic function of the Hebrew letters in their name).[7]
    4. "In the Ancient Near East people were already aware that the world was extremely old. The Mesopotamian king lists indicate that kings had reigned in Sumer for 241,200 years prior to the Flood…. According to the Babylonian priest Berossus, kings had reigned in Babylon for 432,000 years prior to the Flood."[8]
    5. Some of the genealogies create contradictions when taken literally. For example, "Genesis 46:11 lists Kohath as among the descendants of Israel who traveled to Egypt. A literal reading of Exodus 6:18 puts his lifespan at 133 years; Exodus 6:20 puts his 'son' Amram's lifespan at 137 years. Adding to these Amram's son Moses' eighty-year age at the time of the exodus yields a maximum of 350 years from the descent to the exodus, 80 years shy of the 430 years put forward in Exodus 12:40".[9]

- Genesis fits into mythical categories in that it constructs a narrative that grounds and authorizes the practices of the author's religion. For example, the author's religion, Judaism, held to the practice of resting on the seventh day. The creation story, in which God works for six days and rests on the seventh, authorizes this Jewish practice.
- Genesis has similarities with Ancient Near Eastern myths such as the Enuma Elish, the Atrahasis Epic, and the Egyptian Creation Myth that establish Genesis as belonging to the same genre as those other myths—a genre that is not supposed to be taken purely literally.[10]
- Genesis also has eight characteristics that unite it with myths in general:[11]

    1. Myths are narratives, whether oral or literary.
    2. Myths are traditional stories handed down from generation to generation.
    3. Myths are sacred for the society that embraces them.
    4. Myths are objects of belief for members of the society that embraces them.
    5. Myths are set in a primeval age or another realm.
    6. Myths are stories in which deities are important characters.
    7. Myths seek to anchor present realities such as the world, mankind, natural phenomena, cultural practices, and the prevailing cult in a primordial time.
    8. Myths exhibit fantastic elements and are not troubled by logical contradiction or incoherence. E.g.: talking animals, God walking around as a humanoid (Judaism was opposed to that idea), trees growing in a single day, morning with no sun, global waters draining away in a single day, fruit trees with supernatural powers, and so on. It's important to note that these are fantastical not just from a modern scientific perspective, but also for an ancient person. The author of Genesis would know full well that such things couldn't ordinarily happen.[12]

Folklorist Lauri Honko characterizes a myth as

> a story of the gods, a religious account of the beginning of the world, the creation, fundamental events, the exemplary deeds of the gods as a result of which the world, nature and culture were created together with all parts thereof and given their order, which still obtains. A myth expresses and confirms society's religious values and norms, it provides patterns of behaviour to be imitated, testifies to the efficacy of ritual with its practical ends and establishes the sanctity of cult.[13]

Creationists might object that if we don't take the creation story literally, then we have no reason to take the story of Jesus's resurrection literally, thus undermining the foundation of Christianity. But this is mistaken, since the gospels are written in a different literary genre than Genesis—namely, ancient biography, which requires a more literal reading than Genesis does.

Creationists might object that we *should* assume that Genesis is to be taken literally, since we should take God's Word at face value and trust that God makes his Word clear to us; if God had wanted us to take Genesis non-literally, then God would have made that clear. But the objector here is putting themself in the place of God and presuming to know how God would act; and also

ignoring the fact that God sometimes provides us with *natural evidence* for things, which is certainly the case regarding the view that Genesis falls into a non-literal literary genre.

Creationists might object that Exodus 20.11 refers to creation as happening in six days.[14] Exodus holds up the creation story—six days of work followed by one day of rest—as the reason for keeping the Sabbath and resting on the seventh day. Surely the author of Exodus wouldn't have told the Israelites to keep the Sabbath because of something that hadn't actually happened. Therefore, surely the author of Exodus read Genesis 1-2 literally. And if the author of Exodus read Genesis 1-2 literally, then so did the author of Genesis 1-2, since it seems very unlikely that the author of Genesis 1-2 intended a non-literal account but was subsequently misunderstood by the author of Exodus, who forgot the genre of Genesis 1-2.

This is a fair point, but as William Lane Craig argues, we should not

> think that the *authority* of a myth in a society depends upon the *literal truth* of that myth. That's just not the case. Myths are often interpreted figuratively or metaphorically in societies for which they are authoritative. The myth of a six-day creation climaxing in a day of rest can be authoritative for Sabbath observance in Israel without thinking that God created for literally six, consecutive, 24-hour days and then rested on the seventh.[15]

Given all this, it seems that a non-literal interpretation of Genesis 1-11 is at least a *permissible option* for the faithful Christian, if not the preferred option. If that's correct, then if the scientific evidence supports evolution and an old universe, then we should *prefer* a non-literal interpretation. Otherwise, we are just ignoring the scientific evidence for no good reason.

Now, *does* the scientific evidence support evolution and an old universe? I deal with this question in the next two essays.

Creationists might object that evolution, which entails millions of years of animal death, contradicts Paul, who taught that "sin entered the world through one man, and death through sin" (Rom 5.12). But Paul is surely talking about *spiritual* death in Romans. Consider Romans 6.23: "For the wages of sin is death, but the gift of God is eternal life in Christ Jesus our Lord". Paul is contrasting spiritual death (separation from God) with spiritual life (union with God). If Paul were talking about physical life and death, then Romans 6.23 would be teaching that Christians would never physically die, which is absurd.

Similarly, in Genesis 2.17, when God says, "on the day you eat from [the tree of the knowledge of good and evil], you will certainly die", God was clearly not talking about physical death, since they *didn't* physically die on that day. But they did *spiritually* die—i.e., they lost the communion they initially had with God. They also lost access to the Tree of Life. If they had been naturally immortal before eating the fruit, the Tree of Life would have been pointless. But if they had been

naturally *mortal* before eating the fruit, the Tree of Life would have existed to rejuvenate them, so that they could keep eating of it and never die.[16]

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[1] "What are the ten horns of the beast?", *GotQuestions*.

[2] The overall structure of this opening paragraph I owe to William Lane Craig.

[3] This point is from William Lane Craig.

[4] William Lane Craig, "Mytho-History in Genesis", *First Things* (2021).

[5] This is from a colleague of one of my Christian Scriptures professors. See also Joüon and Muraoka, *A Grammar of Biblical Hebrew (Subsidia Biblica)* (Gregorian and Biblical Press, 2011).

[6] This and the next point are from William Lane Craig, "#660 The Genealogies of Genesis 1-11", *Reasonable Faith* (2019).

[7] Duane Christensen, "The Mysterious Numbers of the Ages of the Patriarchs", and Nahum Sarna, *Understanding Genesis* (1970), 84-85.

[8] Kenneth Kitchen, cited in Craig, "#660 The Genealogies of Genesis 1-11", *Reasonable Faith* (2019). Comma added.

[9] Walter Kaiser, *The Old Testament Documents* (2001), 70.

[10] Bryan Windle, "Three Ancient Near Eastern Creation Myths", *Biblical Archaeology Report* (2019) and Dustin Martyr, "Comparing and Contrasting Genesis 1 with Ancient Near Eastern Cosmologies", *The Dustin Martyr Blog* (2015).

[11] William Lane Craig, "The Historical Adam", *First Things* (2021). See also Craig, *In Quest of the Historical Adam* (Eerdmans, 2021).

[12] This point is from William Lane Craig.

[13] Lauri Honko, "The Problem of Defining Myth", in *Sacred Narrative: Readings in the Theory of Myth*, ed. Alan Dundes (Berkeley: University of California Press, 1984), 49. Her description is in terms of polytheistic myths; but of course, this does not rule out monotheistic myths. See William Lane Craig, "#757 The Sabbath Day and Mytho-History", *Reasonable Faith* (2021).

[14] Thanks to Mary Lyons for this point.

[15] Craig, "#757 The Sabbath Day and Mytho-History".

[16] William Lane Craig, "#683 The Relation between Adam's Sin and Death", *Reasonable Faith* (2020).

SCIENCE

Evolution

Young-earth creationism (YEC) teaches that (1) less than 15,000 years ago, God created the universe, the sun, and the earth and its contents, in six consecutive twenty-four–hour days; (2) God created all animals in specific kinds that constitute evolutionary boundaries; no animal of a specific kind can evolve into a different kind;[1] and (3) God created the first human out of the dust, and this man and his wife are the progenitors of every other human. Before they first sinned, there was no pain or death in humans or animals. In this and the next essay, I assess YEC on various data.

1. Genetic Data

1. Genetic Code. Thousands of new species, DNA sequences, and protein sequences are discovered every year. The theory that all species descended from a single organism strongly predicts "that all newly discovered species that belong to the known phyla will use the 'standard genetic code' or a close derivative thereof".[2] This is exactly what we have observed. On the other hand, the theory that God created all the different kinds individually does not predict this data. God could have created all sorts of different kinds of life on earth. After all, "there are 1.4×10^{70} informationally equivalent genetic codes, all of which use the same codons and amino acids as the standard genetic code". Plus, using a variety of genetic codes would likely have been more beneficial, since that would have reduced viral infections between organisms.[3]

2. Nested Hierarchy. The standard way of grouping species is via a "nested hierarchy", which can be represented with a tree diagram[4] that shows groups of species descending from ancestors, which in turn are members of earlier groups of species, each with an ancestor, and so on. These groupings are not random but based on characteristics observed in the organisms. This is analogous to the way linguists group languages—e.g., English descended from European languages and so is more closely related to German than it is to Hindi, which descended from Indic languages.[5, 6] Plus, out of the 1.5 million known species, none of them fails to fit into this scheme. Again, the theory of common descent predicts exactly what we see, whereas the theory of special creation does not.

3. Molecular Hierarchies. The standard evolutionary tree, which is derived by considering biological structures, can also be *independently* derived by cytochrome *c* molecular studies. This is an incomprehensible coincidence, since "there are over 10^{38} different possible" trees that could be diagrammed using the biological species that we are aware of—and yet *both* morphological and molecular studies deliver the same evolutionary tree. Again, this is highly expected, if not entailed, on common descent, but it is not expected on special creation.

4. Vestiges. A *vestige* is a structure that is "reduced and rudimentary … compared to the same complex structure in other organisms. Vestigial characters, if functional, perform relatively simple, minor, or inessential functions using structures that were clearly designed for other complex purposes".[7]

- Ostriches have "rudimentary wings which are useless *as wings*", since ostriches cannot fly.
- "Most pythons … carry vestigial pelvises hidden beneath their skin …. The vestigial pelvis in pythons is not attached to vertebrae (as is the normal case in most vertebrates) … [but] simply floats in the abdominal cavity."
- "Some lizards carry rudimentary, vestigial legs [trapped] underneath their skin."
- Many flightless beetles (including some weevils) have "perfectly formed wings housed underneath fused wing covers."
- "Over 90% of all adult humans develop" wisdom teeth, which usually never "erupt from the gums, and in one third of all individuals they are malformed …. These useless teeth can cause significant pain, increased risk for injury, and may result in illness and even death."
- The human appendix, though perhaps not completely useless, is "a rudimentary version of the much larger caecum that is essential for digestion of plants in other mammals."
- As embryos, humans grow tails that are "degraded and eaten by our immune system" and are "unnecessary for sitting, walking, and elimination". What is left over is the *coccyx*, "the four fused caudal vertebrae at the base of the spine, exactly where most mammals and many other primates have external tails protruding from the back. Humans and other apes are some of the only vertebrates that lack an external tail as an adult". The coccyx doesn't help us with "balance and grasping, their usual functions in other mammals", but instead can cause "extreme and unnecessary chronic pain" and can be entirely removed, an operation which almost always relieves the pain.
- Examples of poor design in humans: (1) Human testicles are outside the body and so are unprotected and very painful when struck, but some other animals, such as frogs, have their testicles safely inside the body. (2) Human childbirth is extremely painful because the infant grows large in the womb, but in kangaroos, the baby grows in the mother's pouch.[8]

All these examples can be explained in terms of the beneficial functions and structures of the organisms' predicted ancestors, or at least in terms of common descent. For further lines of evidence for common descent, see Douglas Theobald's article cited in the endnotes.

Creationists might object that YEC can explain vestigial pelvises, legs, and wings, since these are examples of variation with a biological *kind*, which YEC allows for. Maybe this is true, but if a species evolves so dramatically that it loses an entire set of limbs or organs, surely it has evolved into a new kind, on any reasonable definition of the word 'kind'. Or perhaps there are no kinds at all, but merely a long, uninterrupted chain of organisms, each one only slightly different from its parent. Either of these conclusions would rule out YEC.

2. The Fossil Record

1. Biological Intermediates. We have complete sets of several transitional fossils. We have at least twenty fossils representing intermediate stages between dinosaurs and birds (including Eoraptor, Herrerasaurus, and Ceratosaurus). We have several fossils representing intermediate stages between reptiles and mammals (including pelycosauria, therapsida, and cynodonta). We also have fossils of archaic humans such as Denisovans, as well as twelve fossils representing

intermediates between chimpanzees and modern humans (including *Australopithecus*, *homo habilis*, Neanderthals, *homo heidelbergensis*). We also have fossils representing intermediates between land animals and sea animals (such as *Pezosiren portelli*). Moreover, the stratigraphical dating on these fossils is consistent with the chronology posited by phylogenetic studies: fossils predicted to be earlier in the phylogenetic tree are confirmed as earlier by stratigraphical dating.[9] Again, all this data is better explained on common descent than on special creation. Regarding hominids, "the difficulty in reconstructing exact genealogical relationships among all of these fossils species is that there are *too many links*, not that there are missing links. Like most family trees, the family tree of the hominids is best described as a wildly branching bush".[10]

2. Geographical Intermediates. Based on the phylogenetic information, the theory of common descent makes predictions about which time period and regions certain fossils will be found in. These predictions have been consistently confirmed and never disconfirmed. Common descent predicts that the "common ancestors of South American marsupials and Australian marsupials" are fossilized in a time period *before* South America and Australia separated from each other, and this is what we observe. Plus, we have a complete horse fossil record stretching across North America; this record makes good sense geographically and biologically. Finally, common descent (since Darwin) has long predicted that "early hominid fossils" will be found in Africa and not "in Australia, North America, South America, Antarctica, Siberia, or on any oceanic islands removed from Africa". Again, all this has been confirmed; "numerous transitional fossils between humans and the great apes have been found in southern and eastern Africa".[11]

3. Objections

1. Genetic Boundaries. Creationists might object that it is genetically or chemically impossible for one kind to evolve into another—that there are *genetic boundaries* between kinds or species. But this is just a claim. What is the evidence for that? What is the evidence that *none* of the branches on the phylogenetic tree could have obtained?

2. New Genetic Information. Creationists might object that "there is no known observable process by which new genetic information can be added to an organism's genetic code".[12] But this is false: every time two parents have sex and conceive a child, that child has a unique DNA that is not exactly similar to the DNA of either parent, due to variations and mutations.[13] In addition, in a bacterial evolution experiment of many thousands of generations, bacteria evolved and acquired a new ability: the ability to eat and live off of citrate.[14] A new ability requires new genetic information.

If the creationist is instead saying that there is no possible process by which one kind can evolve into another, then that just begs the question against evolution. If the creationist is instead saying that we have never observed one kind evolving into another, then this isn't surprising, since it isn't a process that would happen quickly enough for us to observe. We would have to live for millions of years in order to observe such a thing. And let's be fair: the young-earth creationist believes that God created the world in six twenty-four–hour days. Did the creationist observe

that? No, but it would be silly to use that as an argument against YEC. So let's focus on the evidence that we *do* have for evolution, some of which I have listed above.

3. Irreducible Complexity. The intelligent design theorist Michael Behe at one point argued that "irreducibly complex" organisms—i.e., organisms whose functions are lost when one of their parts is removed—could not evolve by direct, gradual evolutionary mechanisms. But this has been falsified within the past century.[15] And H. Allen Orr provides a simple explanation for how "irreducibly complex" organisms could evolve:

> An irreducibly complex system can be built gradually by adding parts that, while initially just advantageous, become – because of later changes – essential. The logic is very simple. Some part (A) initially does some job (and not very well, perhaps). Another part (B) later gets added because it helps A. This new part isn't essential, it merely improves things. But later on, A (or something else) may change in such a way that B now becomes indispensable.[16]

4. Effects of Sin. The same goes for the creationist who says that harmful or useless genetic features, such as vestigial organs, are the results of Adam's original sin. Once again, this adds additional complexity to their theory, which, arguably, is already worse off than common descent, since YEC explicitly requires the existence of a transcendent, supernatural intelligent being, whereas the theory of common descent leaves open that question. This belief also carries with it the counterintuitive theological idea that God saw fit to curse all of creation—humans, animals, plants, maybe even the weather—merely because two humans disobeyed God.

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[1] Thanks to Mary Lyons for clearing this up for me.

[2] Douglas Theobald, "The Unique Universal Phylogenetic Tree", *talkorigins.com*

[3] Ibid.

[4] See Theobald, "Phylogenetics Primer", for diagrams.

[5] Theobald, "Prediction 1.2: A nested hierarchy of species", *talkorigins.com*.

[6] See Old World Language Families for a diagram.

[7] This entire section, except where noted otherwise, is adapted from Theobald, "Part 2: Past History", *talkorigins.com*. All the quotes and information in this section of my essay are from Theobald's article.

[8] Abby Hafer, *The Not-So-Intelligent Designer: Why Evolution Explains the Human Body and Intelligent Design Does Not* (Cascade Books, 2015).

[9] Theobald, "Prediction 1.2: A nested hierarchy of species".

[10] Theobald, "Prediction 2.6: Past biogeography".

[11] Ibid.

[12] "Evolution", *Answers in Genesis*.

[13] Joel Edmund Anderson, "Ken Ham's Claims that there is No Evidence to Support Evolution", *Resurrecting Orthodoxy* (2015).

[14] Israel Ramirez, "Has macroevolution been observed?", *Quora* (2018).

[15] Pete Dunkelberg, "Irreducible Complexity Demystified", *talkdesign.org* (2003).

[16] H. Allen Orr, "Darwin v. Intelligent Design (Again)", *Boston Review* (1997).

The Age of the Universe

The previous essay assessed Young-Earth Creationism (YEC) on genetic and fossil data. This essay continues with other scientific data.

1. Light from Distant Galaxies

The Andromeda Galaxy, first observed in the 300s, "is a barred spiral galaxy and is the nearest major galaxy to the Milky Way".[1] Its distance from us has been calculated using multiple methods. A *Cepheid-based* method uses the difference between the apparent and absolute magnitude of a faraway object to calculate its distance.[2] An *eclipsing binary* method observes two stars that orbit each other and so "pass in front of and behind each other", forming periodic eclipses. From the duration of the eclipses, along with the size, temperature, and apparent brightness of the stars, their distance from earth is calculated. Both of these methods *independently* produce a distance of about 2.5 million light-years away.[3]

Of course, in order for us to see the Andromeda Galaxy, light must travel from the Andromeda Galaxy to us. But since the galaxy is 2.5 million light-years away, then it has taken 2.5 million years for light to travel from the galaxy to us. This contradicts the YEC idea that the universe is less than fifteen thousand years old. And more recently, the Hubble eXtreme Deep Field shows images of galaxies that are calculated at 13.2 billion light-years away.

Creationists might object that, since the universe is expanding, the Andromeda galaxy was originally closer to us, and so it need not have taken 2.5 million years for light to travel from Andromeda to us.[4] *My reply:* Andromeda is measured to be moving *toward* us at a speed of about 110 km/s;[5] the pull of gravity outweighs the expansion of the universe. And so this creationist objection is blocked; the light we currently see from Andromeda indeed required 2.5 million years to travel from Andromeda to us.

Creationists might object that, a few thousand years ago, God could have created a path of light stretching all the way from Andromeda to us. But this response has two problems. First, it would be pointlessly deceptive on God's part, since God would be giving us the impression that the universe is much older than it actually is. A loving, rational, perfect God would not tempt astronomers toward falsehood in this way.[6] Second, it is an *ad hoc* response that is clearly tacked on to avoid a problem with young-earth creationism, a response that is not suggested either by science or by the Bible. It is hardly more plausible than the view that God implanted dinosaur fossils in the ground. We should avoid such types of responses.

Creationists might object that God *had* to create the light from Andromeda already in motion on its way to us, since an object at rest can begin moving only if acted on by an external force.[7] But this seems wrong. There are plenty of forces or force-like entities that could have caused the light to start moving from Andromeda to us: momentum, gravity, the weak and strong forces,

magnetism, some quantum fluctuation, or even a little "push" from God. So the creationist response here does not avoid the problem of divine deception.

Creationists might object that anything God creates will have the appearance of age. But this is wrong: if God had created the initial singularity before the big bang, then the universe would not need to contain misleading evidence of a history before the singularity, but rather could contain evidence that the universe *began* at the singularity.

Creationists might object that God might have *good reasons* to create something with the appearance of age. When Jesus turned water into wine, the wine appeared as if it had been aged for years.[8] But I find this unpersuasive, for two reasons. First, the Bible *tells* us that the wine was miraculously created, and so it was not a mass deception on the scale of designing the universe so that anyone who correctly used the tools of science and mathematics would get an answer that was off by billions of years. Second, the miracle was performed for a specific purpose (to give people wine—but add in any theological purpose you would like) that seemed to justify whatever small-scale deception resulted from anyone's thinking that the wine was older than it was.[9]

2. Expansion of the Universe

In 1924, Edwin Hubble "used spectroscopic red-shift data to measure the speeds [that certain] objects were travelling, then graphed their distance from Earth against their speed. He discovered that … the farther away objects are from Earth, the faster they are moving away from us".[10]

A simple explanation for this is that universe is expanding. To illustrate this, suppose that cities A and B are 100 miles apart from each other, cities C and D are 500 miles apart, and cities E and F are 1000 miles apart. If Earth suddenly expanded like a balloon so that its diameter were doubled, then A and B would become 100 miles *farther* apart, C and D would become 500 miles *farther* apart, and E and F would become 1000 miles *farther* apart. When the surface expands, objects that are farther apart recede more quickly from each other than do objects that are closer together. And so the theory that space is expanding accounts well for the data that more distant galaxies are receding more quickly. (Of course, as explained above, gravity often pulls things together strongly enough to outweigh the expansion rate in certain local areas.[11])

Now if the universe is expanding as time progresses, then the most straightforward extrapolation is that as we go back in time, the universe contracts. Based on numerous independent calculations from the expansion rate, the density of the universe, and (sometimes) the amount of dark matter, the age of the universe has been calculated as being between 10 and 20 billion years old, with the most precise calculations at around 13.8 billion years.[12]

3. Background Radiation

In 1965, two astronomers accidentally discovered a consistent signal that "apparently came from everywhere with the same intensity, day or night, summer or winter". This signal was discovered

to be the result of "cosmic microwave background radiation", a radiation whose wavelength is too long to be visible but is captured by instruments. The big bang theory predicts this radiation better than any other scientific theory. The big bang theory posits that about 300,000 years after the big bang, the universe had cooled down enough for light to travel freely. The wavelength of this light increased over time as space expanded, which is why it is no longer visible today. Note how this fits with the data regarding expansion.[13]

4. Radiometric Dating

"Isotopes are variations of an element differentiated by the number of neutrons in their nuclei. The isotopes of unstable radioactive elements—known as parent isotopes—eventually decay into other, more stable elements—known as daughter isotopes—in a predictable manner, and in a precise amount of time called a 'half-life'. The half-life of an element is the amount of time required for exactly half of a quantity of that element to decay. The age of a sample can be determined based on the ratio of parent to daughter isotopes within the sample".[14] This method of dating—*radiometric dating*—has established that certain terrestrial rocks and minerals are at least 3.5 billion years old. Also, by examining ice layers in glaciers, scientists have "found ice that is 123,000 years old in Greenland and 740,000 years old in Antarctica".[15]

Creationists might object that it would not be surprising for God to have created rocks with the appearance of age, since God created *Adam* as a grown man, not as a zygote. Of course, evolutionists will not accept this, but since evolutionists are the ones presenting the radiometric dating arguments, the evolutionists will need to either grant this point or give independent arguments against it. Suppose we grant that God created Adam as a man, the creation of Adam is comparable to the water-into-wine miracle: it was a small-scale miracle about which everyone was informed. Adam and Eve would not have been deceived into thinking that Adam had parents, since God told them that they were the beginning of the human race. So it seems wrong to think that believing that God created Adam as a man justifies believing that God created the universe so that all these large-scale pieces of evidence (phylogenetics, fossils, molecular hierarchies, vestigial organs, light from distant galaxies, expansion, unstable isotopes, and so on) are all *uniformly misleading* to the honest inquirer. At any rate, believing that God manipulated the evidence in this way renders YEC an intrinsically very *ad hoc* and convoluted view.

In conclusion, we have seen that every relevant piece of scientific data supports common descent over young-earth creationism; that the Bible does not support young-earth creationism over common descent; and that young-earth creationism often must rely on *ad hoc* and implausible beliefs in order to account for the data. Therefore, I conclude, young-earth creationism is almost certainly false.

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[1] Wikipedia.

[2] Matt Williams, "What are Cepheid Variables?", *Universe Today* (2016).

[3] Ken Croswell, "First direct distance to Andromeda", *Astronomy* (2005).

[4] Thanks to Jared Bray (who is not a young-earth creationist) for bringing this objection to my attention.

[5] Sean, "Are We Seeing the Andromeda Galaxy as it Was 2.5 Million Years Ago?", *National Radio Astronomy Observatory*.

[6] No, I am not "imposing my morals" on God or "telling God what to do", I am simply using the everyday, commonsense definitions of 'loving', 'perfect', and 'rational' as they are used by most English speakers as well as by the Bible. Surely no one would argue that a loving, rational, perfect God would set up the world to intentionally deceive anyone who ever tried to make time measurements using distant galaxies.

[7] Thanks to Cody Skinner for this objection.

[8] Thanks to Dr. Timothy Bandy for this objection.

[9] For further reading, see Ken Keathley, "The Confessions of a Disappointed Young-Earther". For effective criticism of Parry Moon and Domina Spencer, "Binary Stars and the Velocity of Light", *Journal of the Optical Society of America* 43.8 (1953), which argues that light from distant stars might only need about 15.7 years to reach us, see Perry Phillips, "A History and Analysis of the 15.7 Light-Year Universe", *Perspectives on Science and Christian Faith* 40.1 (1988): 19-23 and Robert Shadewald, "Moon and Spencer and the Small Universe", *Creation/Evolution Journal* 2.2 (1981).

[10] The University of Western Australia, "Evidence for the Big Bang", https://www.uwa.edu.au/study/-/media/Faculties/Science/Docs/Evidence-for-the-Big-Bang.pdf. I've added the comma after the word 'travelling'.

[11] Thanks to Jared Bray for pointing this out to me about the balloon analogy.

[12] NASA, "How do we measure the size and the age of the Universe?", *Imagine*.

[13] "Cosmic Microwave Background (CMB) radiation", *European Space Agency*.

[14] "How Did Scientists Calculate the Age of Earth?", *National Geographic* (2022).

[15] "How are the ages of the Earth and universe calculated?", *BioLogos* (2023).

The Speed of Light

1. The Speed of Projectiles

You and I are standing still. I throw a ball to you at 50 miles per hour relative to me. Relative to you, the ball also travels at 50 mph, since you are also standing still. Now suppose I am running away from you at 10 mph. In that case, when I throw the ball, it moves 50 mph relative to me, but only 40 mph relative to you, since my running speed of 10 mph is subtracted.

2. The Speed of Waves

Waves don't work quite like projectiles. Waves propagate through a medium at a constant speed relative to that medium, regardless of how fast the wave's source is moving through the medium. For example, sound travels at a speed of ~767 mph through air. So if I blast an air horn at you while we are both standing still, the sound waves will propagate at a speed of 767 mph relative to me *and* relative to you. If I blast an air horn at you while I am running away from you at 10 mph, the sound waves will still travel at 767 mph relative to you, because you are not moving relative to the medium (i.e., the air).[1] However, I am moving at 10 mph relative to the medium, and so the sound waves propagating toward you are moving at 777 mph relative to me, since I am moving in the opposite direction of those sound waves.

3. The Speed of Light

If light is a wave, then there must be a medium for light to propagate through. In the 1800s, the *ether* was postulated to be this medium. The ether was characterized as "weightless, transparent, frictionless, undetectable chemically or physically, and literally permeating all matter and space".[2] And so it was believed that light propagated through the ether at a constant speed relative to the ether, regardless of how fast the light's source was moving through the ether.

If this is right, then one could theoretically measure the speed of the earth through the ether. Here's one way to do so. Place two stopwatches, A and B, exactly 1 meter apart from each other. Program them to start at the same time,[3] and program each of them to stop when it receives a light signal. Then shine a light beam so that the beam passes through A and then through B. Now examine what time each stopwatch paused at. As it turns out, the time on B will be exactly one 299,792,458th of a second higher than the time on A. From this, you can calculate the speed of light at 299,792,458 meters per second.

Now redo the experiment, but this time, shine a beam in the opposite direction, so that it passes through B and then through A. Now, if the time difference between the stopwatches is *smaller* than 1/299,792,458 sec, then the light traveled a shorter distance the second time, which means that the earth is moving in the *opposite* direction of the light—i.e., while the beam was between the two stopwatches and heading toward A, A itself (being carried along with the earth) was moving toward the beam, and thus "intercepted the beam early", causing the shorter duration.

But if the time difference in the second experiment is *larger* than 1/299,792,458 sec, then the light traveled a *longer* distance the second time, which means that the earth is moving in the same direction as the light—i.e., while the beam was between the two stopwatches and heading toward A, A itself (being carried along with the earth) was moving away from the beam, and thus the beam had to "play catch-up" with A, causing the longer duration.

As it turns out, the time difference will be exactly 1/299,792,458 sec on the second experiment too. And the time difference will *always* be 1/299,792,458 sec, whether you place A on the north, west, east, or south side of B, as long as the two stopwatches are exactly 1 meter apart. The speed of light is always measured at 299,792,458 m/sec in every direction, no matter what direction you are moving, or how fast. But how can this be if the earth is moving through the ether?

4. Einstein's Solution

To understand Einstein's initial solution, we need to understand what an *inertial reference frame* is. A reference frame is a perspective from which objects can be judged to be at rest or in motion. For example, if Alex is in a car driving past me, then relative to my reference frame, Alex and the car are moving. But relative to *Alex's* frame, neither he nor the car is moving—instead, *I* am moving past *him*, and so is the surrounding countryside. If two objects are moving at exactly the same speed and direction, they are in the *same* reference frame. And so in the above example, the countryside and I are in one frame, and Alex and the car are in another frame.

Einstein's initial solution involved two postulates:

1. The principle of relativity. The laws of physics work the same way in every reference frame, and there is no ether and no absolute motion. And so all motion is relative. No object is absolutely at rest or in motion. An object is at rest or in motion *only relative to* another object. For example, if you are floating in space, and an asteroid heading east passes by you, there is no absolutely correct answer as to whether (i) the asteroid is moving east and you are at rest, (ii) the asteroid is at rest and you are moving *west*, or (iii) both you and the asteroid are moving, but the asteroid's motion is more eastward than yours. This solves the conundrum regarding the speed of light. The earth is *not* moving absolutely.[4] This removes the expectation that the measured speed of light would be different in different directions.

2. The constancy of the speed of light. The speed of light is exactly the same in every reference frame. And so the measurements in the above experiment are *accurate*. It's not as if something is uniformly interfering with all attempts to measure the speed of light, so as to produce the *illusion* that the speed of light is the same in every direction. The speed of light actually *is* the same in every direction, regardless of your speed or direction. The speed of light is thus *a universal constant*. So whether you are moving at 10%, 50%, or 90% the speed of light, it will still be the case that light still moves at 299,792,458 m/sec *relative to you*. Now, because the speed of light is constant for *every* reference frame, *there is no reference frame at which light is at rest* and the rest of the world is whizzing by.

[1] The sound waves heading toward you will be farther apart from each other than they were when I was standing still. This is because I travel some distance farther from you *between* the generations of any two consecutive sound waves that head toward you, thus spacing them out more from each other. Conversely, the sound waves heading in the same direction as me will be closer to each other than they would be if I were standing still.

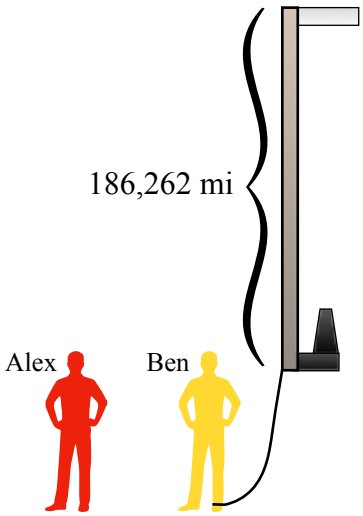
[2] "ether", *Britannica*.

[3] One could do this by standing equidistant to A and B, and using a machine that would fire two light beams at once, one beam pointed at A, and the other beam pointed at B; and having A and B each programmed to start counting once it receives its light beam.

[4] I owe this point to Amit. See here for his correction of a previous error I made.

Time Dilation

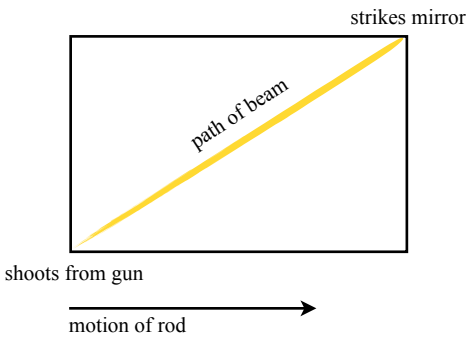
Einstein's postulates (described in the previous essay) have some strange consequences. Imagine a vertical rod that is 186,262 miles tall (≈ 299,792,458 meters). At the bottom of the rod is a laser gun pointing up. At the top is a mirror. Ben is attached to the rod, and Alex is standing nearby.



Suppose that two things happen at once: (1) The rod shoots away from Alex at a certain speed, pulling Ben along and traveling sideways—i.e., perpendicular to its height. (2) The gun fires a light beam that travels parallel with the rod, heading to strike the mirror.

Ben sees the beam shoot from the gun. The beam travels vertically up and strikes the mirror. Since the speed of light is 186,262 mi/sec, it takes exactly 1 second, relative to Ben, for the beam to travel from the gun to the mirror.[1] Suppose that the rod stops moving away from Alex at the moment that the beam hits the mirror.

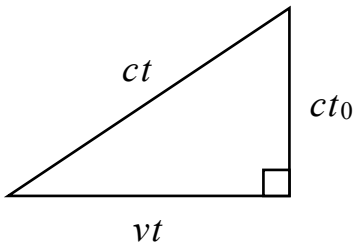
But the speed of light is *also* 186,262 mi/sec relative to *Alex*. And relative to Alex, the light beam isn't traveling vertically but *diagonally*, since it is also covering the horizontal distance traversed by the rod.[2] What is this horizontal distance? Well, **`distance = speed × time`**. So the horizontal distance traveled by the rod is its speed (v) multiplied by the time it takes—relative to Alex—for the beam to get from the gun to the mirror (t). So the horizontal distance is vt.



Now let's calculate the height of the rod. The height of the rod is 186,262 mi, but since height is a *distance*, we can generalize it as the speed of light (c) multiplied by the time it takes (relative to Ben) for the beam to get from the gun to the mirror. In this particular example, that duration is 1 second, but let's call it t_0 so that we can generalize to rods of different heights if needed. So the height of the rod is ct_0.

Now let's calculate the diagonal distance traveled by the light beam, relative to Alex. This is the speed of light (c) multiplied by the time it takes (relative to Alex) for the beam to get from the gun to the mirror (t). So the diagonal distance traveled by the light beam is ct.

We can input these three values as the lengths of the three sides of a right triangle:



Pythagoras's theorem tells us that $(vt)^2 + (ct_0)^2 = (ct)^2$. From here, we can solve for t, which is the value we're looking for: the duration of the light's journey *relative to Alex*.[3]

$$v^2t^2 + c^2t_0^2 = c^2t^2$$

$$c^2t^2 - v^2t^2 = c^2t_0^2$$

$$t^2 - \frac{v^2t^2}{c^2} = t_0^2$$

$$t^2(1 - \frac{v^2}{c^2}) = t_0^2$$

$$t^2 = \frac{t_0^2}{1 - \frac{v^2}{c^2}}$$

$$t = \frac{t_0}{\sqrt{1 - \frac{v^2}{c^2}}}$$

With the equation now in hand, let's try an example. Suppose that the speed of the rod relative to Alex (v) is $\sqrt{3/4}c$, which is approximately 86.6% the speed of light (≈161,308 mi/s).

$$t = \frac{t_0}{\sqrt{1 - \frac{(\sqrt{3/4}c)^2}{c^2}}} = \frac{t_0}{\sqrt{1 - \frac{3c^2/4}{c^2}}} = \frac{t_0}{\sqrt{1 - \frac{3}{4}}} = \frac{t_0}{\sqrt{\frac{1}{4}}} = \frac{t_0}{\frac{1}{2}} = 2t_0$$

So if Ben is moving at ~161,308 miles per second relative to Alex, then relative to Alex, Ben's time runs at half-speed. Relative to Alex, when the light beam hits the mirror, one second will have passed on Ben's clocks, but *two* seconds will have passed on Alex's clocks.

This is an instance of *time dilation*: if someone moves in a straight line relative to you, then, relative to you, clocks in their reference frame count slower than clocks in your frame. Since the speed of light is the same in every reference frame, a time discrepancy will *always* appear when someone is moving relative to someone else, no matter the speed, direction, or distance. Of course, in daily life, no one ever moves relatively fast enough to notice the discrepancy.

One might object that normal clocks would not behave like the light beam does—surely clocks would stay synced up with each other, regardless of their relative speed. But recall Einstein's first postulate: the laws of physics behave the same way in every reference frame. That means that, relative to Ben, a clock traveling with him will stay synchronized with the light beam: it will record that 1 second has passed when the beam hits the mirror. It's not as if the clock would "sense" that it is moving relative to Alex, and then speed itself up in order to stay synchronized with Alex's clock. And, of course, the clock will definitely not sense that it is *absolutely* moving, because there is *no* absolute motion.

To make things even stranger, recall Einstein's first postulate: there is no absolute motion or rest. In the instance above, it's not the case that Ben is absolutely moving and Alex is absolutely at rest. Each person is merely at rest relative to himself and moving relative to the other person. Therefore, the situation is *symmetrical* between Alex and Ben. Not only is Ben moving at 161,308 mi/s relative to Alex, but Alex is moving at 161,308 mi/s relative to Ben. That means that, relative to Ben, when Ben's clock is at 2 seconds, Alex's clock is only at 1 second. So relative to Alex, Ben's clock is counting slow; but relative to Ben, Alex's clock is counting slow. Relative to each person, the *other* person's clock is counting slow. So time dilation is *symmetric*.

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[1] This is *not* to say that Ben will *perceive* this happening in exactly 1 second.

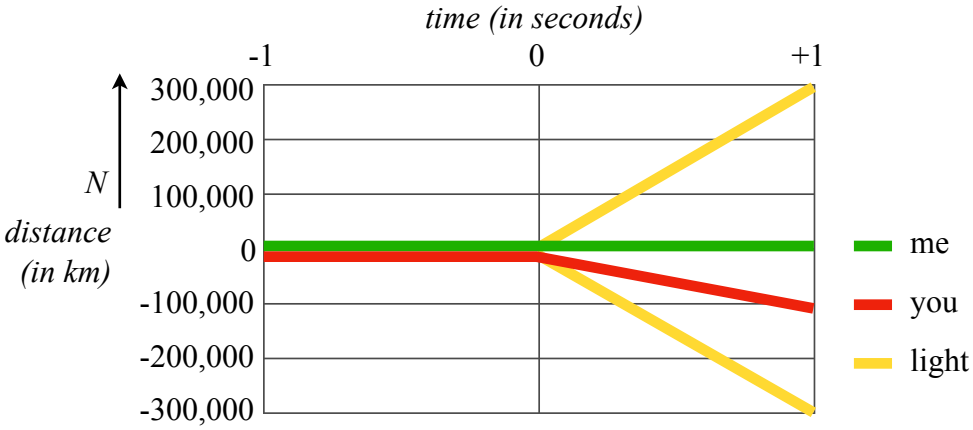
[2] The whole point about the diagonal path I owe to John Norton, "Special Theory of Relativity: Clocks and Rods". Note that, relative to Alex, the photons don't shoot straight up; they inherit the lateral velocity of the rod. See Richard Sauerheber, "Clarifying Special Relativity", in *Progress in Relativity* (IntechOpen, 2019).

[3] I owe this derivation to "Time Dilation formula derivation (Special Relativity)", *Mathematical Methods for physics and Engineering* (YouTube, 2022).

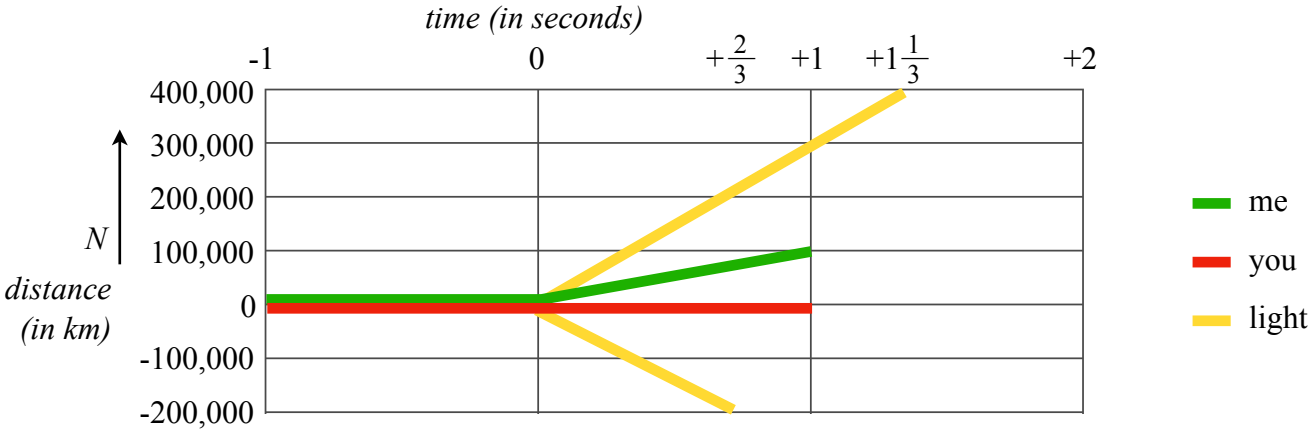
Relativity of Simultaneity

1. Relativity of Simultaneity

Another strange consequence of Einstein's postulates is *relativity of simultaneity*. Suppose that I shoot two light beams at once: one north, one south. There is a target 300,000 kilometers north of me, and another target 300,000 km south of me. Relative to me, the two light beams hit their targets at the same time: exactly one second after I fired them. (I round the speed of light to 300,000 km/s for simplicity.) Now suppose that you were standing in the same spot as me, and, at the moment I fired, you started running south at a speed of 100,000 km/s. The figure below plots the paths of you, me, and the two light beams over time, relative to me:



Now, relative to *you*, the northern light beam travels *400,000* km north: 300,000 km north of me plus the extra 100,000 km that you traversed going south. But since light travels at 300,000 km/s relative to you, the northern beam would take 1⅓ seconds to reach its target! And relative to you, the southern beam travels only *200,000* km south. That means the southern beam would take only ⅔ seconds to reach its target! So relative to *you*, the two beams do *not* reach their targets at the same time; the southern beam reaches its target ⅔ seconds before the northern beam does![1]



Note that your perspective is invertible: If a third person, Ben, started moving *north* from me at a speed of 100,000 km/s when I fired the beams, then relative to *Ben*, the *northern* beam would reach its target at +⅔ seconds, and the southern beam would reach its target at +1⅓ seconds. And so events would happen in a *different order* relative to Ben than they happen relative to you.

So which perspective is correct? Did the two beams reach their targets at the same time or at different times? Einstein's postulate that there is no absolute motion entails that *neither* perspective is *absolutely* correct; each perspective is correct only relative to everything in its reference frame.

2. Implications for Presentism

If this is correct, the implications are bleak for *presentism*, the view that the only things that exist are things that exist right now in the absolute present, that the past and future do not exist in any sense, and that nothing exists in the past or in the future. If all simultaneity is relative, then no two events are absolutely simultaneous. That means that no event is absolutely simultaneous with the present event of your present thoughts as you read this sentence. But since the only things that exist are things that exist in the present, then nothing that is *not* present exists. Therefore, the only things that exist are your own present thoughts as you read *this* sentence. The external world does not exist relative to you—i.e., *solipsism*.[2]

Even stranger than that, *existence itself becomes relative*—i.e., whether a given thing exists is relative to a given reference frame. Suppose that, when the northern light beam hits its target, a human being comes into existence in the same frame as the target. In that case, relative to me, one second after I shoot the beams, that human being exists. But relative to you, one second after I shoot the beams, that human being does not exist. There is no absolute truth as to whether that human being exists. And thus a paradox is generated for presentists:

1. Presentism is true.
2. Existence is not relative.
3. Einstein's two postulates are true.
4. If Einstein's two postulates are true, then either presentism is false or existence is relative.

I have demonstrated (4) in the preceding material. The majority of physicists today reject (1) and hold to *eternalism* in the form of *four-dimensional spacetime*, which was originally developed by Hermann Minkowski. Rejecting (2) leads to the extreme view, described earlier in this section, that is too relativistic for most people.

And so it seems the committed presentist must find a plausible way to reject (3) and hold to absolute simultaneity. The presentist must hold to an absolute present and a *privileged reference frame*—an undetectable reference frame that is the "absolutely correct" one, a frame relative to which all motion and simultaneity that occur are occuring *absolutely*. For example, two events that are simultaneous relative to this privileged frame are *absolutely* simultaneous.[3]

The challenge for the presentist, then, is explaining how the speed of light can be measured as the same in all directions, even for an observer who is absolutely in motion.

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[1] I have adapted this thought experiment from Marco Ocram's answer here. The graphics are mine.

[2] This idea was given to me by Deborah C. Smith.

[3] The paradox and the following discussion I have adapted from Katherine Hawley, "Science as a Guide to Metaphysics?", *Synthese* 149.3 (2006): 465-468.