LIBERTY UNIVERSITY

Eleutheria

Volume 5
Issue 1 *Unity in Christ*

Article 4

May 2021

A Cabin in the Woods: A Former Statistician Responds to a Critique of the Bayesian Version of the Fine-Tuning Argument for God's Existence

Adam Lloyd Johnson
Midwestern Baptist Theological Seminary

A Cabin in the Woods: A Former Statistician Responds to a Critique of the Bayesian Version of the Fine-Tuning Argument for God's Existence

Abstract

Many theists and atheists agree that the fine-tuning argument is the most compelling argument for the existence of God. However, there are many different versions of this argument and, as with most things in life, some versions are better than others. In this paper I will respond to Neil A. Manson's recent critique of what I call the "Bayesian Version of the Fine-Tuning Argument" for God's existence. I will argue that the Bayesian version is a relatively poor argument but that the "Abductive Version of the Fine-Tuning Argument" for God's existence is quite compelling.

Keywords

Fine-Tuning Argument, Bayesian, Inference to the Best Explanation

Cover Page Footnote

Adam Lloyd Johnson serves as a university campus missionary with Ratio Christi. He also teaches classes for Midwestern Baptist Theological Seminary and spends one month each year living and teaching at Rhineland Theological Seminary in Wölmersen, Germany. Adam received his PhD in Theological Studies with an emphasis in Philosophy of Religion from Southeastern Baptist Theological Seminary in 2020.

Introduction

In the last few decades, scientists have discovered numerous astonishing facts about our universe that seem to indicate it has been precisely fine-tuned for life. As engineers who design our spaceships to sustain human lives in space can attest, life can only exist if numerous factors are set to precise specifications. Similarly, our universe seems to have been finely tuned for intelligent life to exist and thrive. The fact that these laws of physics are set just so has led many to conclude that our universe was designed by a supreme being with an intelligent mind. Many use the term 'God' to refer to such a supreme being, as will I for the remainder of this article.

Since I myself am not a scientist, I rely on professional academic scientists to better understand these issues, scientists such as Stephen Barr. Having earned his Ph.D. in physics from Princeton University in 1979, Barr went on to do high-level research in theoretical particle physics and cosmology. He is a Fellow of the American Physical Society and is currently Professor of Theoretical Particle Physics at the Bartol Research Institute at the University of Delaware. Barr has given several examples of such finely-tuned constants concerning our universe that, when discovered, greatly impressed and surprised many scientists. For example, scientists have

> …discovered that indeed carbon does have an energy level at 7.66 MeV. What if this energy level of carbon had been at a slightly different energy? What if it had been 7.5 MeV or 7.9 MeV instead? In that case the three-alpha process would not have been resonantly enhanced, very little carbon would have been synthesized in stars, the building up of the elements would have been stymied, and there would be very little ordinary matter in the universe except hydrogen and helium.[1]

Barr used numerous examples of such fine-tuned constants as evidence to argue that our universe was designed for life by a supreme being with an intelligent mind.

Many theists and atheists agree that the fine-tuning argument is the most compelling argument for the existence of God. However, there are many different versions of this argument, and, as with most things in life, some versions are better than others. In this paper, I will respond to Neil A. Manson's recent critique of what I call the "Bayesian Version of the Fine-Tuning Argument for God's

[1] Stephen M. Barr, *Modern Physics and Ancient Faith* (Notre Dame, Ind.: University of Notre Dame Press, 2003), 123.

existence."[2] I will argue that the Bayesian version is a relatively poor argument but that the "Abductive Version of the Fine-Tuning Argument for God's existence" is quite compelling.

The Bayesian Version of the Fine-Tuning Argument

In order to understand the Bayesian Version of the Fine-Tuning Argument, you first need to understand Bayes' Theorem. If you like math, then you will love this section. If you do not like math, then I am sorry, but here we go anyway.

As I noted in the title of this paper, I am a former statistician. Technically, I was an actuary, but many have never heard that term before. Actuaries specialize in actuarial science, which is called a science but actually has more to do with mathematics. Actuaries apply rigorous mathematical and statistical methods to assess and price risk, mostly in insurance, finance, and investments. Some actuaries work on Wall Street, some work for the government, but most work for insurance companies to develop, price, and value insurance products. I worked in the field of actuarial science for ten years, seven of which I spent studying for the professional exams required to earn the coveted FSA (Fellow of the Society of Actuaries) designation. During these seven years, I spent, on average, three to four hours a day studying calculus, probability, statistics, finance, and actuarial mathematics. During my actuarial career, I worked for insurance companies such as Allstate and Humana, mostly pricing life insurance. I have taken the time to explain this part of my background in order to make the point that I am very familiar with both the strengths and weaknesses of Bayes' Theorem.

Bayes' Theorem is very well known as a tool in probability theory that calculates conditional probabilities. In other words, it calculates the probability of an event based on prior knowledge of conditions that might be related to that event.[3] It has been usefully applied in many different fields such as science, engineering, psychology, etc. The theorem was named after Thomas Bayes (died AD 1761), an English statistician, philosopher, and Presbyterian pastor, because he formulated an important version of the theorem.

At this point, I will present a traditional example that's often used to explain Bayes' Theorem. Suppose you have two bags of beans. In the first bag there are 10 green beans and 90 red beans. In the second bag there is 1 green bean

[2] Neil A. Manson, "How Not to Be Generous to Fine-Tuning Sceptics," *Religious Studies* 56.3 (2020): 303–17. However, the page numbers that I reference in this paper refer to Manson's publicly available version which can be found at (PDF) How not to be generous to fine-tuning sceptics | Neil A. Manson - Academia.edu

[3] James Joyce, "Bayes' Theorem," *The Stanford Encyclopedia of Philosophy*, URL = <https://plato.stanford.edu/archives/spr2019/entries/bayes-theorem/>.

and 99 red beans. While your eyes are closed, your friend chooses one of the two bags randomly and tells you to pick one bean out of the bag. When you open your eyes, you see that you picked a green bean. Given the condition that you picked a green bean, what is the probability that your friend picked the first bag? Bayes' Theorem can be used to calculate this conditional probability as follows:

- Probability of your friend choosing the first bag = P(bag 1) = 50%
- Probability of your friend choosing the second bag = P(bag 2) = 50%
- Probability that you'd pick a green bean, given the condition that your friend chose the first bag = P(green | bag 1) = 10/100 = 10% because there are 10 green beans out of 100 in the first bag
- Probability that you'd pick a green bean, given the condition that your friend chose the second bag = P(green | bag 2) = 1/100 = 1% because there is only 1 green been out of 100 in the second bag
- Probability of your friend choosing the first bag and you choosing a green bean = P(bag 1) x P(green | bag 1) = 50% x 10% = 5%
- Probability of your friend choosing the second bag and you choosing a green bean = P(bag 2) x P(green | bag 2) = 50% x 1% = .5%

Bayes' Theorem can calculate the probability that your friend chose the first bag, given the condition that you picked a green bean, as follows: P(bag 1 | green) =

$$\frac{P(\text{bag 1}) \times P(\text{green} \mid \text{bag 1})}{P(\text{bag 1}) \times P(\text{green} \mid \text{bag 1}) + P(\text{bag 2}) \times P(\text{green} \mid \text{bag 2})}$$

Which is calculated as:

$$\frac{5\%}{5\% + .5\%}$$

Which comes to 91%. Conversely, you can calculate the probability that your friend chose the second bag, given the condition that you chose a green bean, and that comes to 9%. Thus, given the condition that you picked a green bean, it is much more likely your friend chose the first bag. Of course, there is still a small possibility (9%) that he chose the second bag, but it is much more probable (91%) he chose the first bag, given the condition that you picked a green bean.

Even though it may be hard to imagine, given this silly bag-of-beans example, Bayes' Theorem has been usefully applied in many different fields. Because of this, it is not surprising that some have tried to apply it in making their case for the existence of God. Next, I will present an oversimplified example, using the same inputs from my bag-of-beans example, of how some have tried to

use Bayes' Theorem to argue for God's existence based on the fine-tuning of the universe.

Suppose there are two possibilities. In the first possibility God does exist, and there's a 10% probability that this God, if He did exist, would create a fine-tuned universe that is life-permitting. We will call this 10% probability 'PLUG' (the **P**robability there would be a fine-tuned **L**ife-permitting **U**niverse, given the condition that **G**od does exist). In the second possibility God does not exist, and there is a 1% probability that, if there was no God, a universe fine-tuned for life could come about by chance. We will call this 1% probability 'PLUN' (the **P**robability there would be a fine-tuned **L**ife-permitting **U**niverse, given the condition that there is **N**o God). Let's say we have no other information to go on about whether or not God exists (which is not the case but we'll assume it is so to simplify this example), so we'll set the probability there's a God at 50% and the probability there is not a God also at 50%. Given that we find ourselves in a universe fine-tuned for life, what is the probability that God exists? Bayes' Theorem can be used to calculate this probability as follows:

- Probability of the existence of God = P(God) = 50%
- Probability that God does not exist = P(no God) = 50%
- Probability that there would be a universe fine-tuned for life, given the condition that God does exist = P(fine-tuned universe | God) = 10/100 = 10% because there's a 10% chance such a God, if He exists, would choose to create a universe fine-tuned for life (remember we're calling this PLUG)
- Probability that there would be a universe fine-tuned for life, given the condition that there is no God = P(fine-tuned universe | no God) = 1/100 = 1% because there's only 1% chance that a fine-tuned universe would come about by chance (remember we're calling this PLUN)
- Probability of there being a God and that God chooses to create a universe fine-tuned for life = P(God) x P(fine-tuned universe | God) = 50% x 10% = 5%
- Probability of there being no God and there existing, by chance, a universe fine-tuned for life = P(no God) x P(fine-tuned universe | no God) = 50% x 1% = .5%

Bayes' Theorem can calculate the probability that there is a God, given that we do in fact have a universe fine-tuned for life, as follows: P(God | fine-tuned universe) =

$$\frac{P(God) \times P(\text{fine-tuned universe} \mid God)}{P(God) \times P(\text{fine-tuned universe} \mid God) + P(\text{no God}) \times P(\text{fine-tuned universe} \mid \text{no God})}$$

Which is calculated as:

$$\frac{5\%}{5\% + .5\%}$$

Which comes to 91%. Conversely, you can calculate the probability that there is no God, given that we live in a universe fine-tuned for life, and that comes to 9%. According to this then, given the condition that we do have a fine-tuned universe, it is much more likely God exists than He does not. Of course, there is still a small possibility (9%) that there is no God, but it is much more probable (91%) that there is. This is an oversimplified example of how some have used Bayes' Theorem to argue that it is more probable God exists than that He does not, given the condition that we do have a universe fine-tuned for life.

I used the exact same probability inputs here as I did for the bag-of-beans example just so you could follow along more easily. As you can imagine, when people use Bayes' Theorem like this to argue for God's existence, they use much different probability inputs. For example, they often claim that the probability that there would be a universe fine-tuned for life, given that God does exist, is much higher than 10%. They argue that if God exists, He would be more likely than not to create a universe fine-tuned for life. Remember that we are calling this probability PLUG. In addition, they often claim, reasonably so in my estimation, that the probability that there would be a universe fine-tuned for life if there is no God, that such a universe arose merely by chance, is much lower than 1%. Remember that we are calling this probability PLUN. These two changes to the initial probability inputs of course would greatly increase the probability that God does exist, given that we live in a universe fine-tuned for life.

Manson's Critique of the Bayesian Version of the Fine-Tuning Argument

Manson noted that for a Bayesian Version of the Fine-Tuning Argument to work "… it is not enough to argue that it is extraordinarily improbable that the universe is life-permitting if God does not exist [PLUN]. One must also give reasons for thinking that the probability that the universe is life-permitting if God exists

[PLUG] is not likewise extraordinarily low."[4] Therefore, most Bayesian Versions of the Fine-Tuning Argument "… include a premise to the effect that the probability that the universe is life-permitting if God exists [PLUG] is not nearly as low as the probability that the universe is life-permitting if God does not exist [PLUN]."[5] He explained that,

> [r]ecently, however, some proponents of the fine-tuning argument have indicated that there is no need for a positive argument that PLUG is not extremely low. The universe's being just right for life is so vastly improbable if there is no God, they say, that the fine-tuning argument will be compelling even if we set PLUG at one in a billion (or even lower). In other words, even if one has real questions about whether God would create anything at all and about what sort of world God would create, that doubt can just be expressed as an extremely low personal probability of 0.000000001 that God would create a life-permitting universe. Even if that is one's credence, they say, the life-permittingness of the universe is compelling evidence of God's existence, because the probability that our universe is life-permitting just by chance [PLUN] is vastly lower even than one in a billion.[6]

In other words, particular Christian apologists have argued that even if PLUG is very low, Bayes Theorem still calculates a high probability that God exists because PLUN is extremely miniscule.

> Manson chided Christian apologists for using this strategy as follows: [S]uppose a Christian apologist is making the fine-tuning argument to an audience of everyday people. She begins by offering a (hypothetical) billion-to-one wager to audience members that God would create a life-permitting physical universe if He existed [PLUG]. Doubtless a high percentage of the audience will say that they would take the bet. They do not want to say that it is impossible, and billion-to-one odds are close to the lowest betting odds it is feasible even to propose. She then inserts 'one in a billion' as the collective credence of the audience that God would create a life-permitting universe. And she then proceeds to run the [Bayesian Version of the] fine-tuning argument in the manner of Rota, Hawthorne & Isaacs, and Barnes. Such an apologist would be quite a sly

[4] Manson, "How Not to Be Generous to Fine-Tuning Sceptics," 2.
[5] Ibid.
[6] Ibid., 3.

> person and would have a great future designing circus games. Proponents of the fine-tuning argument should not act like her.[7]

While it is true that some popular-level Christian apologists act like circus performers from time to time, I should probably leave that topic for another day. For now I will only mention the often repeated, yet not so inaccurate, generalization that Christian apologists tend to overstate their case for Christianity whereas Christian philosophers tend to understate it. Sometimes overstating one's case, or being overly confident about one's position, is part of an attempt to be more persuasive, but I personally find such individuals less persuasive.

Manson's concern about such popular-level apologetic strategies highlights his primary criticism of the Bayesian Version of the Fine-Tuning Argument, namely, that Bayes' Theorem is only accurate, and thus useful, if we are fairly confident about the initial probability inputs. Manson argues that estimating the conditional probability inputs for this argument, PLUG and PLUN, is like shooting in the dark. Critics of this argument, such as Manson himself, maintain that "the value of PLUG is inscrutable. They claim to see no basis for assigning any probability at all to the proposition that God would create a life-permitting physical universe."[8] He also noted that such critics "claim to find it inscrutable what sort of universe God would or would not want to create."[9] He lamented that we "really have no idea what kind of universe God would create or even whether God would create a universe at all."[10] Part of his reasoning for this point is that "God is a being so unlike us that we simply cannot say what we ought to expect God to do with regards to creation."[11] He concluded that "[e]ven if both humans and God count as beings with minds, God's mind is so different from ours that we cannot judge what God would be likely to create, or even whether God would be likely to create at all. So how can we say with any confidence that God would create a life-permitting universe?"[12] Thus, Manson concludes that the Bayesian Fine-Tuning Argument is a poor argument.

My Response to Manson's Critique of the Bayesian Version of the Fine-Tuning Argument

I agree entirely with Manson that the degree of accuracy in the results of Bayes' Theorem in any particular application is directly proportional to the degree

---

[7] Manson, "How Not to Be Generous to Fine-Tuning Sceptics," 12.
[8] Ibid., 5.
[9] Ibid., 19.
[10] Ibid., 18.
[11] Ibid., 6.
[12] Ibid., 6–7.

that the initial probability inputs are accurate. If your initial probability inputs are accurate, such as in the bag-of-beans scenario, then Bayes' Theorem is an accurate and useful tool. However, if it is difficult or impossible to establish your initial probability inputs, then Bayes' Theorem is practically worthless. With the bag-of-beans scenario we knew how many bags there were and how many beans of each color were in each bag. Imagine though that we did not know how many bags there were that our friend could choose from and that we did not know how many beans of each color were in each bag. In that scenario Bayes' Theorem would be of no use whatsoever. Yes, we could make some guesses as to the initial probability inputs, but the result of using Bayes' Theorem in such a scenario would be no better than the initial guesses themselves.

I also agree with Manson that it is very difficult, if not impossible, for us to come up with some sort of estimation concerning the probability that God, if He exists, would create a life-sustaining universe. Thus, I affirm his concern about the Bayesian Fine-Tuning Argument for God. Do not get me wrong; I am a theist because I find several arguments for the existence of God, such as the cosmological and teleological arguments, extremely compelling. But that does not mean I think all arguments for God are compelling. For example, here is a terrible argument for God's existence:

1. God exists if Adam Lloyd Johnson drives a black vehicle.
2. Adam Lloyd Johnson drives a black vehicle.
3. Therefore, God exists.

Now of course I agree with the conclusion because of other, much better, arguments, but this argument itself is not a very compelling way to argue for this conclusion. I feel the same way about the Bayesian Fine-Tuning Argument, but thankfully there are other versions of the fine-tuning argument.

The Abductive Version of the Fine-Tuning Argument

What I call the 'Abductive Version of the Fine-Tuning Argument' is as follows:

1. The universe is fine-tuned for life.
2. The best explanation for the universe's fine-tuning is that it was designed by a supreme being with an intelligent mind (God).
3. Therefore, God exists.

As with any argument, each premise needs to be explained and defended. Since I did this for premise one in the introduction to this article, I will now briefly explain and defend premise two.

Premise two, that the best explanation for the universe's fine-tuning is that it was designed by a supreme being with an intelligent mind (God), is an inference to the best explanation. David Baggett explained that:

> An inquiry into the 'best explanation' invokes the process of abduction, a common form of reasoning that distinguishes itself from deduction in a few ways. Most importantly, whereas a deductive argument makes an effort at forging an airtight evidential connection between premises and conclusion, an abductive approach asks, less ambitiously, what the best explanation of the relevant phenomena is. It typically uses criteria like explanatory scope and power (along with plausibility, conformity with other beliefs, etc.) to narrow down the explanation candidates to the best explanation, and warrants, potentially anyway, to infer that the best explanation is likely the true explanation.[13]

We often use this sort of abductive reasoning in our everyday lives as well as in our scientific pursuits.

Here is a simple example of how abductive reasoning works. Let us say you are a farmer, your crops have produced a harvest this year ten times greater than you've ever seen, and you do not know why. Your friend Toni comes to you and presents a possible explanation: the weather conditions this year (sun, rain, wind, etc.) were just so perfect that they caused your crops to produce this tremendous amount. Another friend, Lenny, approaches you with an alternative explanation: a local scientist developed a new super-fertilizer and secretly put it on your crops to test its effectiveness.

Of course, there are an infinite number of other possible explanations, but most of them can be quickly rejected. For example, though it is possible that aliens from another planet caused your harvest to be so plentiful, most would reject this explanation unless there was substantial evidence to back it up. In the majority of situations we face in life, a few plausible explanations quickly rise to the top of the list that we then must evaluate more closely. In my farmer example there are two such plausible explanations to consider. Which one best fits the evidence? It will take some work on your part to fully explore both explanations and see which one is most plausible and best fits the evidence. This is a simple example of abductive reasoning, and it boils down to an inference to the best explanation.

---

[13] David Baggett, "Psychopathy and Supererogation," in *A Debate on God and Morality: What Is the Best Account of Objective Moral Values and Duties?* ed. Adam Lloyd Johnson (New York: Routledge, 2021), 131. For an exhaustive treatment on this form of argument, see Peter Lipton, *Inference to the Best Explanation*, 2d ed. (New York: Routledge, 2004).

What leads many to conclude that the best explanation for the universe's fine tuning is that it was designed by a supreme being with an intelligent mind (God)? This is based on an empirical observation, namely, that we have never observed design come about from any other source than by an intelligent mind. Think for a moment how archeologists detect design. Let us say an archeologist digging at a site uncovers something that, at first glance, could either be an ancient plate designed by a human or merely a flat rock which came about naturally. There are two indications which would cause the archeologist to conclude it was a designed artifact—complexity and specificity. Something has complexity if it has multiple parts, and something has specificity if it has a non-random arrangement of these multiple parts.[14] These two attributes together are powerful evidence that something has been designed by an intelligent mind because we have never observed specified complexity come about in any other way. Scientists such as archeologists and forensic detectives both use these principles to ascertain whether or not something was designed by an intelligent mind. For example, if the archeologist discovered several sentences of a known ancient language engraved on the back of the artifact, she would have no doubt it was designed by an intelligent mind. She would immediately conclude this because language is a classic example of specified complexity; it has multiple parts (lines, shapes, or letters) which are arranged non-randomly to form words and sentences.

An important part of the Abductive Fine-Tuning Argument is that God is similar to us in the sense that He has an intelligent mind that can design things. In fact, the Abductive Fine-Tuning Argument itself leads to this conclusion because it is based on the empirical observation that we have only ever seen design come about through the action of beings with intelligent minds, i.e., humans. Since there is strong indication that the universe was fine-tuned, that is, designed for life, it is reasonable to conclude that the being responsible for this design has an intelligent mind analogous to ours.

Thus, I respectfully disagree with Manson concerning his suggestions that "God is a being so unlike us"[15] and that "God's mind is so different from ours."[16] I do not know how Manson arrived at these conclusions because he, at least in this paper of his I am considering, does not provide any reasons or evidence to back up these assertions. The classical arguments for God (cosmological, teleological, and moral arguments) seem to point to a God that is at least somewhat like us. For example, since He causes things, we can reasonably conclude He is a causal agent

[14] For a technical paper on how specified complexity can be quantified using probability, see George D. Montanez, "A Unified Model of Complex Specified Information," *BIO-Complexity* 2018.4 (2018): 1–26.

[15] Manson, "How Not to Be Generous to Fine-Tuning Sceptics," 6.

[16] Ibid.

somewhat similar to us; since He designs things, we can reasonably conclude He has an intelligent mind somewhat similar to us; and since He is the source of morality, we can reasonably conclude He is a moral being somewhat similar to us.

In addition, once a solid case is put forth that the Bible is from God, we can take note of how the Bible describes the similarities between God and us. The Bible seems to indicate that there are similarities between God and humans because He created us in His image. The Bible often refers to this similarity, and sometimes quite explicitly, as in 1 Cor 2:10–11 where Paul explained that the spirit of a man is in the man, and knows the thoughts of the man, just like the Spirit of God is in God and knows His thoughts. It is verses in the Bible like these that have led most Christian theologians to affirm that there are attributes of God which humans can also have, which often are referred to as communicable attributes.

However, in order to avoid the danger of making God too human-like, these similarities between God and humans should be understood analogously. Concerning the verses from 1 Corinthians I mentioned above, Poythress wrote that the "… text uses an analogy between the spirit of a human being and the Spirit of God…. The expression 'so also' that begins the last sentence in 1 Corinthians 2:11 indicates that there is an analogy between a human person and God."[17] Elsewhere Poythress warned against the danger on both sides of this issue when he explained that if "… we treat the analogy like an identity, it is univocism. We fall into non-Christian immanence, and we pretend that we can bring God down to our level and capture perfectly the nature of God…. On the other hand, if we treat the analogy as though God were completely different … in every respect, we have equivocism. We fall into non-Christian transcendence, according to which God is unknowable."[18] Certainly we do not want to think of God as more human-like than He really is, but we should be careful, in protecting against this error, that we do not go too far in the other direction and conclude there are no similarities between God and the human beings He created in His image.

Thus we can conclude that there are some similarities between God and us, even if it is not possible to nail down exactly what all these similarities are. As for why God would create beings similar to Himself, consider Torrance's comment that "… God does not will to exist for himself alone and does not wish to be without us, but has in his eternal purpose of love freely created a universe, within which he has placed human beings made after his own image and likeness

---

[17] Vern S. Poythress, *Knowing and the Trinity* (Phillipsburg, NJ: P&R Publishing, 2018), 58.

[18] Poythress, *Knowing and the Trinity*, 104.

in order that he may share his love with them and enable them to enjoy his divine fellowship."[19]

In this section I have argued that the Abductive Fine-Tuning Argument is a strong argument for the existence of God. In the next section I will put forth an analogy to the fine-tuning argument which will illustrate why the Bayesian version is not very useful and why the Abductive version is so compelling.

A Cabin in the Woods

Consider the following hypothetical situation: Chad purchased 120 acres of woods so he could enjoy hiking, nature watching, and hunting in his spare time. One of the reasons he purchased this particular section is that Travis, the one who sold it to him, told him that this was a well-preserved natural habitat because no humans had ever lived there or developed it in any way. This was important to Chad because he knew any such human development would have scared off some of the wildlife and because he wanted to enjoy nature that had been completely undisturbed by humans. Unfortunately, within the first few weeks after he purchased the 120 acres, Chad discovered a relatively modern log cabin in the woods along with a large garden surrounded by a fence. He was quite upset with Travis, who, when he sold it to him, claimed there was no such human development in these woods. Chad decided to take Travis to court and plead his case before a judge. Incredibly, in court Travis claimed he told the truth when he said that there was no human development in these woods because the cabin came about not through human design but through chance.

In order to make his case before the judge that a human had designed and built this cabin, Chad presented a Bayesian Argument similar to the Bayesian Fine-Tuning Argument for God. He claimed that if there was a human who had been living in these woods, there is a decent probability that this human would have built such a cabin. In other words, the probability there would be a cabin, given the condition that a human had lived in these woods, was fairly large. He argued that, even if this probability was not fairly large, the probability of such a cabin coming about merely through chance, apart from human design, was extremely small. In other words, the probability there would be a cabin, given the condition a human was never in these woods, is miniscule. To keep it simple, let us say he used the same probabilities that we did above with the bags-of-beans example and concluded there was a 91% chance this cabin was designed and built by a human.

To counter this argument, Travis, who sold the land, argued that it is impossible to know the probability that a human, if they lived in these woods,

[19] Thomas F. Torrance, *The Christian God: One Being Three Persons* (New York: Bloomsbury T&T Clark, 2016), 207.

would build a cabin or not. Yes, a human might build such a cabin, but they might also decide not to build a cabin for a host of reasons. Even if they did choose to build something, there are many other things they could have built besides a cabin. For all these reasons Travis argued that the probability a human, if they lived in these woods, would build a cabin was inscrutable. Travis concluded that because Bayes' Theorem is only useful when you have fairly accurate initial probabilities to use as inputs, Chad's argument that a human designed and built this cabin was not very compelling.

When Chad began to respond to Travis' argument and give more reasons to believe the probability is relatively large that a human would build such a cabin, given the condition that such a human had lived in these woods, the judge quickly interrupted. He told them that they had gotten sidetracked from the issue at hand by speculating about the probability that a human would or would not build a cabin in these woods given there was a human who had lived there. Instead, the judge put forth the following Abductive Argument similar to the Abductive Fine-Tuning Argument for God.

1. There is a cabin in these woods.
2. The best explanation for this cabin is that it was designed and built by a human.
3. Therefore, there was a human who had lived in these woods.

The judge noted that his second premise, that the best explanation for this cabin was that it was designed and built by a human, is based on an empirical observation, namely, that we have just never observed a cabin coming about in any other way. Yes, there are other possible explanations for the existence of this cabin, but the best explanation by far is that it was designed and built by a human. The Abductive Version of this argument is superior to the Bayesian Version because, given that we know a cabin does exist, all we have to do for the Abductive Version is consider the best explanation for how it came about. Whereas with the Bayesian Version, regardless of whether or not such a cabin exists, we have to speculate about the probability that someone would build such a cabin to begin with. Based on this reasoning, the judge sided in Chad's favor.

The purpose of this hypothetical story was to draw out the superiority of using an Abductive Fine-Tuning Argument for God instead of a Bayesian Fine-Tuning Argument. While a Bayesian Version of the argument might at first seem more sophisticated, in the end it is less compelling because it gets sidetracked by having to needlessly speculate on the probability that God would, if He existed, create a life-sustaining universe (PLUG).[20]

[20] This hypothetical story is also useful in arguing against the following objection to the Fine-Tuning Argument for God: Even if the earth seems designed and fine-tuned for life, the vast

Conclusion

There is overwhelming evidence that the universe is fine-tuned for life. What is the best explanation for this fine-tuning? Since it includes specificity and complexity, we can confidently conclude that it was designed. Considering the empirical observation that we have only ever seen design come about as the result of an intelligent mind, the best explanation is that it was designed by a supreme being that has an intelligent mind somewhat analogous to ours. Because this Abductive Version of the Fine-Tuning Argument is sufficiently compelling on its own, it is not necessary to try and formulate a Bayesian Fine-Tuning Argument. It may even be counterproductive to do so because it sidetracks the discussion down a useless rabbit trail of having to speculate about the probability that God, if He does exist, would choose to create a life-sustaining universe (PLUG).

majority of the universe is chaotic and not fine-tuned for life. This hypothetical story points out that even though the vast majority of the 120 acres showed no evidence of human involvement, the one small cabin alone is sufficient evidence to conclude that an intelligent mind was there who had designed and built it.