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Are All Religions the Same? Part 2: Fine-Tuning

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Knight & Rose Show - Wintery Knight and Desert Rose

Wintery Knight and Desert Rose continue discussing whether all religions are equally valid paths to God. In this episode, we look at what different worldviews say about whether the universe is actually designed, or only appears to be designed. We look at scientific evidence for design of the universe, our galaxy, our star, our planet and our moon. We then answer objections to design in nature, and talk about our experiences presenting this evidence to skeptics. This is the second episode of a five-part series.

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Transcript

Welcome to the Knight & Rose Show, where we discuss practical ways of living out an authentic Christian worldview. Today's topic is Are All Religions the Same? Part 2. Design. I'm Wintery Knight.

And I'm Desert Rose. Welcome, Rose. So in the last episode, we talked about what truth

is and how different religions make truth claims about the real world that conflict.

We talked about how different religions conflict about how the universe began, or whether it even did begin. And then we looked at scientific evidence to decide whether the universe had a beginning. We looked at what we know about the cause of the beginning of the universe from philosophy and science.

In this episode, we're going to look at more scientific evidence to determine whether the universe appears to be designed or whether it appears to be undesigned. So let's look at some evidence, this time from physics, astronomy, and biochemistry. And don't worry, this won't be complicated.

Alright, sounds good. Well, I think a good place to start would be by stating that Judaism, Islam, and Christianity claim the universe was intelligently designed. Secularism, atheism, Marxism claim the universe is not designed and has no purpose.

Excellent. So we should probably start with a definition of intelligent design. So when we say intelligent design, we mean that an intelligent agent has chosen from a wide range of possibilities in order to convey meaning or achieve a purpose.

So when you sit down at a piece of paper and write a letter, you're choosing the letters and forming sequences that are going to have meaning for someone else. It's the same thing with computer code if when I sit down at my computer and I start typing, I'm trying to sequence the symbols in order to achieve a purpose, like submitting a payment. So give us an analogy for what intelligent design is so we can really understand it and nail it down.

Yeah, so I have an analogy that I really liked that I came up with when I was teaching some young kids this idea, this concept. So I have a young friend named McKinley. McKinley? Yes, McKinley.

And her 14th birthday is coming up. So imagine that on her birthday, she arrives home and she sees her 12 best friends gathered together waiting for her. And there's a big birthday banner hanging up that says, Happy birthday McKinley.

And she sees her favorite kind of cake with little horse figurines on top. Horses are her favorite thing in the whole world. And there are actually real horses for her and her friends to ride.

That's her favorite thing in the whole world to do. Hopefully outside the house. Outside the house, yes, indeed.

And after she unwraps her presents that are there at the house, she sees wrapped presents and after she opens them, she realizes these are all actually from her wish list. Oh, excellent. That she had made and given to her parents.

So how do you think McKinley will respond in this situation? Do you think she's going to say, wow, what a coincidence. My 12 best friends and these horses all showed up at the exact same time on the exact anniversary of my birth all by chance. And this ink arranged itself on a banner to say, Happy birthday McKinley on the exact date of my birth.

And it even hung itself up. And dang, look, all these ingredients got together and cooked themselves to produce my very favorite kind of cake. And all these presents that were on my wish list.

I mean, they must have purchased themselves and wrapped themselves and brought themselves to my house. What an amazing coincidence. I think it's pretty obvious that her friends and family did all that planning and choosing all these plans and gifts just to make her day special.

Yeah, I'd say so exactly. So she's going to say, thank you, mom. Thank you, dad.

I love you guys. She's going to know that an intelligent source put this together for her and that by deduction, it was almost certainly her parents. Yes.

So the universe is similar. So it would be a coincidence. So unlikely.

So impossible as to make it ridiculous to think this all happened without any intelligent designer. So why do I say that? Well, the scientific evidence indicates that the universe was actually fine tuned for life. If you've ever taken a college course in physics, you know that the front and back covers typically have a list of the fundamental constants and quantities that you use in physics calculations, things like the gravitational constant and the speed of light.

Yeah, three times 10 to the power of eight for the speed of light, right? Wow. How? Yeah. Do you remember that from like 10th grade, 11th grade? I remember that.

I think the gravitational constant is like 6.67 by 10 to the negative something. Excellent. Yeah.

So in addition, some of the initial conditions of the universe need to be fine tuned. Now, imagine you had a machine that could create universes. And for each of those constants, conditions and quantities, there was a dial that you could set the values at.

Oh, wow. Like an oven, but it has more dials than just temperature. Yes.

Yeah. Instead of baking cakes, it bakes universes. Right.

So if you change any of those values to be very far outside where they currently are set in our universe and then you push the generate universe button, then your new generated universe is not going to support complex life of any kind. It's not just going to

not support life like ours, but it's not going to support any complex embodied life. Okay, interesting.

So in other words, it appears like someone extremely intelligent carefully set the dials of the universe, so to speak, to make life possible. Yeah. All right.

I knew we were going to be talking about this. So I went looking for quotations that would explain the fine tuning. Nice.

From a scientist point of view. So one of our favorite people on this is Dr. Luke Barnes. He was an Australian cosmologist.

He has impeccable credentials. And he writes books about all the things that Christians care about the origin of the universe and the fine tuning. But he publishes them with Cambridge University Press.

So this is the best possible guy. He even does dialogues and lectures, a really nice guy. So he writes this.

He goes, a universe that has just small tweaks in the fundamental constants might not have any of the chemical bonds that give us molecules. So say farewell to DNA, and also to rocks, water and planets. Other tweaks could make the formation of stars or even atoms impossible.

And with some values for the physical constants, the universe would have flickered out of existence in a fraction of a second, that the constants are all arranged in what is, mathematically speaking, the very improbable combination that makes our grand, complex, life bearing universe possible, is what physicists mean when they talk about the fine tuning of the universe for life. Excellent. Yeah.

So I think it's really important to point this out because the first move that atheists make when you tell them about the fine tuning is to say, well, if the constants had been different, then complex life would still exist, but it would just look different. Yeah, like it would look like Star Trek, right? You'd have Vulcans with pointy ears, or maybe some aliens with green skin. Yes.

And those ridges on their foreheads. On Mr. Warr's forehead. Yeah, or maybe some antlers.

I don't know. Right, but that's not what happens. You can't make life of any imaginable kind at all.

If you don't have a universe, stars, planets, water, etc. There are so many constants that have to be set at specific measurements, that it just isn't reasonable to conclude that all the dials ended up there by chance. Yeah, that makes sense.

Okay, so we have examples. And these are examples that we're hoping that people will listen to and memorize so that they can use them in conversations. Now, there's a lot of examples of fine tuning.

But we're choosing some that you might be able to track with us from chemistry class if you took chemistry in high school. But even if you don't, you'll still be able to, I think, figure it out. So my favorite example when talking about this argument is the strong nuclear force.

Okay, so that's the force inside the nucleus that keeps the nucleus, all the parts of the nucleus together. And so I like this one because when I heard it presented, it was presented by our favorite particle physicist, Dr. Michael Strauss, I actually hosted this guy at a company I was working for a long time ago. Yeah, and he has a hilarious way of presenting the fine tuning of the strong nuclear force.

So I know you've seen his lecture. So why don't you tell us how it goes? Okay, yeah. So like you said, this the strong nuclear force is the force that holds together the nucleus of an atom.

The precise strength of this force allows for the formation of all the elements on Earth. So if you think of the the periodic table of elements, it allows for the formation of all of those elements. If you were to make the strong nuclear force just 2% stronger, while all the other constants stayed the same, you'd have a lot more elements in the periodic table, but there would be two problems.

First, these elements would be radioactive and life destroying. Okay, so that's bad. And we'd have very little hydrogen in the universe.

Hydrogen? Who needs hydrogen? Right. Why do we need hydrogen for water? And why do we need water for life? Right? Okay, yeah. So if you were to decrease the strong nuclear force by just 5%, the only element in existence would be hydrogen.

Yes. So basically, we're deciding how friendly protons are going to be. If the protons are super friendly, then they bond with everything and you have couples of two or more.

But if they're not friendly at all, then they just stay as singles. It's like protons going their own way. Right, exactly.

And since you mentioned the funny way that Dr. Strauss presents this, why don't you tell us what that is? Oh, yes. So everybody should watch Dr. Strauss present these his arguments for intelligent design and the origin of the universe. He goes to Stanford University, University of Dallas, you know, I'll link to them in the post.

But when he's explaining this to the college kids and the faculty members, the other professors, he goes, yeah, if you made the strong force a little bit weaker, then

chemistry class would be a breeze, you'd walk in and the professor would point at the chalkboard and it would say, hydrogen. So there's only one element. And we send this, we send our outlines out for review for from experts and the guy who reviewed this, he said, you wouldn't even have a chalk board or a professor or a chemistry class because if, if there's only hydrogen, exactly, exactly.

I get a kick out of how much you get a kick out of that. He's got a ton of jokes. I know they're all equally maybe I'll bring them up later.

That's so funny. No, you're right, though. I mean, learning chemistry would be a lot simpler, but it wouldn't make any difference because none of us would be here to learn it because the universe itself would be dead.

You can't make complex life out of hydrogen or with no hydrogen. So yeah, that would be like trying to, you know, if you only had hydrogen, that would be like trying to write computer software with just a semicolon key, like not even a spacebar, you just had the semicolon and you could decide to just press it or not. But when you were done, you just have a rows and rows of semicolon and that wouldn't do anything.

So, you know, you're not going to make anything useful. Okay. So anyway, it's not just the constant that need to be fine tuned.

It's actually even the ratios between the constants need to be fine tuned. So for our second example, this is related to the strong force, but the strong force actually has to be in the right ratio with another force called the electromagnetic force. I'm sure everybody remembers that there are four forces and strong force and electromagnetic force or two of them and then the weak force and gravity.

People might not realize this, but in the early universe, it was all hydrogen and in the earliest part of the universe, that's when they that's when there was the formation of heavier elements with like more protons and neutrons in the nucleus. So we start out with hydrogen and then there's fusion that goes on and you come out with things like helium. But also carbon and oxygen are formed maybe a little bit later inside of stars.

So people might have heard that there's nuclear fusion going on in stars and that's where we're getting all these heavy elements like carbon and oxygen. So we want carbon and oxygen in order to make life. So why don't you tell us why what carbon and oxygen are useful for when we're talking about complex life.

Sure. So carbon serves as the universal connector for organic life. Carbon forms bonds that are stable but not too stable, which allows compounds to be assembled and disassembled.

So carbon is kind of like the power bar of life chemistry. You can plug it. You can plug and unplug different things.

Yeah. Like the motherboard inside a computer. You can unplug the memory and put in more memory or you can change your video card.

I end up doing that every three years or so. Right. Exactly.

And then oxygen is a component of water, the necessary universal solvent where life chemistry can occur. So we want lots of carbon and lots of oxygen. Right.

And the production of carbon and oxygen is only possible because there is fine tuning of the mass energy levels and the collisions between these lighter elements. So we're kind of dealing in quantum physics here. But you could imagine taking light elements like hydrogen and helium and squishing them together, smashing them together.

And if things are just right and the resonance levels of these collisions are just what they need to be, then you're going to get an equal amount or almost equal amounts of carbon and oxygen. So this is what we need. And so we have to have fine tuning here in order to get these heavier elements.

Mm hmm. Yeah. So this is called nucleosynthesis.

Nucleosynthesis is when heavier elements are made from lighter elements. And if this fusion is occurring within stars, then it's called stellar nucleosynthesis. Stellar nucleosynthesis.

Excellent. So I have another scientist I really like. I think I've talked about him before.

His name is Dr. Walter Bradley. Yes. And yes.

So he goes around the country as well as being like, I think he's in semi-retirement now, but he spent like 24 years at Texas A&M and the University of Texas. He's like an expert in material science. So chemistry and even origin of life chemistry.

He's co-written a book on origin of life. He explains this nucleosynthesis and the fine tuning of the mass energy level so that there will be resonance that produces carbon and oxygen. So I'm going to quote from him.

He says this. He goes, in 1953, Sir Fred Hoyle and others predicted the existence of the unknown resonance energy level for carbon. And it was subsequently confirmed through experimentation.

In 1982, Hoyle offered a very insightful summary of the significance he attached to his remarkable predictions. If you want to produce carbon and oxygen, and this is Hoyle speaking, if you wanted to produce carbon and oxygen in roughly equal quantities by stellar nucleosynthesis, these are the two levels you would have to fix. And you're fixing would have to be just where these levels are actually found to be.

Another put up job, he asks, following the above argument, I am inclined to think so. A common sense interpretation of the facts suggests that a super intellect has monkeyed with physics, as well as the chemistry and biology, and that there are no blind forces worth speaking about in nature. Yeah, it's interesting to note that in the 1950s, Hoyle was an opponent of the fine tuning evidence.

Hoyle was not a believer in God. And he thought that any universe would support life, because that's what atheists wanted to be true. Right.

By the 1980s, he had to admit that evidence of fine tuning was real. And that, like you said, in the quote, you just read a super intellect monkeyed with physics. So this is real science, making a prediction, doing the experiment, and then finding that the observations match the prediction, or don't match the prediction and letting it lead you to conclude what is true, what aligns with reality.

Yeah, I really like it when these guys like Fred Hoyle and Anthony Flew say, hey, you know, we are completely against God and we predict that the world will, you know, Hoyle was the inventor of the steady state model. He wanted to get away from the beginning of the universe. So this was not a guy who was friendly to us at all.

But he makes a prediction that the resonance level is going to be fine tuned. And then he discovered that it gets discovered 30 years later. And he's like, yeah, maybe there is fine tuning, you know.

So a lot of scientists were initially skeptical of the of the fine tuning. Yeah. And I think that's because like in the 1950s, you know, people were like Hoyle, they were like, I don't want this to be true.

And I don't think it is true. But in the 1950s, we didn't have very many examples of fine tuning. Right.

Now we have like several dozen examples of fine tuning. And I think it's just become dishonest and disingenuous for people to go around saying that there's no evidence for fine tuning. I'm not saying you have to agree that it's evidence for a designer, but everybody agrees that the universe is fine tuned for complex life.

Yeah, exactly. And, you know, I hear this subject. I hear I hear atheist say all the time that because of science, we can eliminate Christianity, we can eliminate the need for an intelligent designer, because now we know so much science.

The reality is, as you've just been describing, that it was fine to be an atheist in the 19th century. But this is 2023 and people really need to download the latest update to their worldview, to be honest, the evidence, the scientific evidence that has been discovered over the past hundred years strongly suggests a designer. Yeah.

Okay, so that's enough about fine tuning of the universe for now. I hope everybody remembers those two examples and maybe checks out the blog post with the references to read a bit more about it. But we actually have a different line of evidence for a supernatural designer.

So yes, we should move on to that. Okay. Well, we've been talking about evidence for a life permitting universe, but there's still work to do to make a suitable habitat for intelligent life.

So Dr. Michael Strauss, who you mentioned earlier, he is a brilliant particle physicist and he is actually a follower of Jesus. And he says this quote, not only is our universe precisely calibrated to a breathtaking degree, but our planet is also remarkably and fortuitously situated. So life would be possible.

End quote. To have a planet then like earth where intelligent life exists, many precise factors must be in place. And here are just a few examples.

Okay. We need, first of all, we need the right kind of galaxy. There are three types of galaxies.

There's elliptical spiral and irregular, but life can only occur in a spiral galaxy like our Milky Way galaxy. It's the only kind of galaxy that produces the right heavy elements. Okay.

We also need the right location in the galaxy. If a planet is too close to the center, then there's too much radiation, not to mention black holes. But if a planet is too far from the center, then it doesn't have the oxygen and the carbon needed for life.

Yeah. And other elements too. If you study this argument, you may hear people talking about the galactic habitable zone.

And what that is, is you're right. A spiral galaxy is the one that, that has a potential to support life. And it's kind of set up like a pinwheel or like a, if you guys are ninjas, you know, you'll know about ninja throwing stars.

It's, it's, uh, if you've seen teenage mutant ninja turtles. So basically the place where life can exist is between the bars of the spiral galaxy, because there they can pick up the heavy elements that they need to form massive stars and planets, but they're far enough away from the arms that they don't get the harmful radiation. Mm hmm.

Right. Yeah. We also need the right blocker planets close by.

So what I mean by that, for example, Jupiter's gravitational field acts like a cosmic vacuum cleaner of sorts for potentially devastating comets, asteroids, meteors that would otherwise strike earth and kill us all. Yeah. And along those lines about getting

protection from solar system predators, uh, the earth also has a magnetic field that protects us from the solar wind, which is like a kind of, they call it a wind, but it's really like a flow of particles coming out of the sun.

The solar wind has charged particles that would strip away the ozone layer that protects the earth from harmful, ultraviolet radiation. So we need that magnetic field and not every planet has it. It's, it kind of takes some work to get one.

Yeah. We also need the right kind of star. Our sun is a class G star because of its surface temperatures and it's a bachelor star, which is needed for stable planetary orbits.

And without a stable orbit, a planet's temperatures could swing from one life destroying extreme to the other. Yeah. This is a circumstellar habitable zone.

Uh, it's another habitable zone. It's important for the planet to be the right distance from the star. If we're too close, then all of our liquid water is going to evaporate.

And if we're too far away, then all of our liquid water is going to freeze. So you need to be the right distance from the star in order to have liquid water at the surface to sustain life. Yeah.

It's kind of like camping. You don't want to be too close or too far from the campfire, right? Yeah. Otherwise you're going to freeze or get burned.

Yeah. All right. Let's, let's go on.

So that's good. That's the, that's the solar system on the star. So let's go on to the planet.

Is there any fine tuning and we need to have there? There is. Yes. We need the right rotation rate.

If a planet rotates too slowly, then temperature differences will be too great between night and day. But if it rotates too fast, then atmospheric wind velocities will be too great. We also need the right sized planet so that gravity lets gases like methane escape, but allows oxygen to stay on earth.

Oxygen comprises 21% of the atmosphere. If oxygen were 25% instead of 21% fires would erupt spontaneously. But if it were 15% instead of 21% human beings would suffocate.

Wow. All right. Also the size of the earth and the size of the moon relative to the sun are fine tuned for eclipses, which allows us to make a lot of scientific discoveries.

Yeah. Really cool. It helps us to understand things that kind of lead us to the designer.

We understand how the universe works. So we need, we definitely need earth of the right planet of the right size, moon of the right size, sun of the right size, at the right distances. So we can make these discoveries.

Yeah. Okay. How about the moon? Yeah, even the moon needs to be fine tuned to support life.

We need the right kind of moon to provide the perfect 23 degree angle tilt. It's very rare for a planet to have just one large moon like earth does. But our moon stabilizes our planetary tilt.

If the tilt were altered slightly, surface temperatures would be too extreme for life. Then we also need the right tectonic activity. Earthquakes are a key requirement for life because they drive biodiversity and help create continents.

Yeah. Yeah. People sometimes complain about different things, natural disasters in the world.

They call it natural evil. One of them is earthquakes. They're like, why do we have to have earthquakes? But if you study this a little bit, you realize that life on this planet wouldn't even exist without earthquakes.

So I think it's really fun to imagine the new earth, but still with earthquakes, because if they're a key requirement for life, there's reason to believe that they'll still exist on the new earth, but without death and without injury. Right. So how fun would that be? Yes.

So yeah. So yeah. So you've got a lot of habitability, fine tuning that you've outlined.

We've got the galaxy fine tuning, star fine tuning, the planet fine tuning, the moon fine tuning. But there's a lot of galaxies. Let me be the skeptic here.

There's a lot of galaxies and stars and planets in the universe. Maybe there's enough of them so that we can have life in other places. So that's kind of like it feels like the person is saying, yeah, I know it's really rare to win the lottery, but if I just buy enough lottery tickets, then I'm then maybe there's a good chance that I'll win.

So you know, the odds of winning lottery are pretty long. But yeah, maybe if we buy lots and lots and lots of tickets, then the odds are pretty good that we'll win. What do you think about that? Well, there are a lot of things that need to be just right to have a planet that supports life.

And actually Dr. Strauss did some calculations and found that the odds of having any higher life supporting planet by chance would be one in 10 to the power of 282. Wow. Yeah.

So for people who are not like familiar with like probabilities and what's really, really long

odds and what's not long odds, 210 to the power of 8282 is ridiculous. So there's only 10 to the 80 particles in the known universe. And there's only 10 to the power of 22 stars in the known universe.

So you get you get about one planet per star maximum that's in the circumstellar habitable zone. So if you take that 10 to the 22 number of stars and say, those are my lottery tickets, I'm going to buy 10 to the 22 lottery tickets. Well, if the odds of winning the lottery are 10 to the power of 282, you still got a long way to go.

Yep, exactly. To be able to win that lottery. Yeah, I think it's safe to say it's not going to happen by chance or to put it another way, Earth and the universe that contains it were created not by chance, but by a remarkably intelligent designer for the purpose of sustaining life as we know it.

And I mean, unless we can find some reason to reject this abundant evidence and its obvious implication, I think we can conclude with confidence that any worldview that teaches that there was no beginning and there was no intelligent designer behind the creation of the universe is a false worldview. Yeah, that's what we're trying to do here. We're looking at different worldviews.

We're seeing what they claim. And in this particular case, atheists and secular humanists and Marxist, they've always claimed, well, there's nothing special about this universe. It doesn't look like it was designed by an intelligence.

What does fine tuning article does is it falsifies that and people have to form their beliefs so that they match up with what we know from reliable sources like like science. So I work in the software engineering field and I sometimes meet people who have math degrees and other degrees like astronomy and chemistry who have then gone into computer science. And sometimes when I share with them information about this habitability, evidence and everything that it takes to make a planet, a star and a solar system and galaxy that support life.

They say, Oh, come on. I've watched Star Wars and Star Trek and there are aliens everywhere. You know, this usually happens, you know, when there's something in the news about, you know, a planet that looks suitable for life in one area, you know, maybe it's the right distance from the star, but then you look at it a little closer and you find out that it's got a tiny moon and so it's not going to be able to support life.

But, you know, it's really funny to me that when you present this evidence, the atheist kind of don't know about it and they don't want to know about it. They really like their science fiction. Yeah, I've actually, I've experienced some of that from people as well.

Yeah. What about the Star Trek transporter? Yes. Yeah, I got to tell you this.

So in my first job, I went to work in a place where like full time where it was kind of a

research company and we had people with like PhDs and master's degrees from really good computer science schools like Northwestern University of Illinois, Urbana-Champaign. That's a well-known school. That's like the gang of four school.

People have gone to Purdue and stuff like that. So we have sometimes talk about these things and most of them, most of them, you know, we're, we're kind of hostile to this kind of evidence. So one time I had a chat with a guy who was working on same application I was developing and I was talking to him about the evidence for mind body dualism.

Okay. So, and he said, uh, well, what about the transporter? I said, what are you talking about? He goes, I'm like, I'm thinking about back to all the papers I've read by like a jaguan cam and, you know, all the philosophers of mind and stuff. Uh, and, uh, he goes, yeah, the transporter from Star Trek, like imagine that you had captain Kirk and you beamed him down to the planet and then his body was in the ship and then it was on the planet.

Like if he has a soul, then how come he stays alive? I'm like, dude, that's science fiction. We don't develop a worldview that anyway. Okay.

That's hilarious. That's really, that's funny. Yeah.

It could be tough to bring these topics off because you never know where people are at and then start laughing in front of them. And it's all over. Okay.

Right. Right. So yeah.

Well, speaking of, of work conversations, well, this was, this wasn't really work, a work conversation, I guess so much as like a ministry conversation, I was mentoring a girl years back and, um, a young scientist, uh, who, uh, works for NASA now. And she asked me, well, why is the universe so big? Why do you think the universe is so big? And it seemed to be kind of a pushback against the evidence, uh, for a designer. So how do you answer that? How do you respond to that? Yeah.

Like if people are building a house, they don't buy an office building and then live in the first floor, you know, in one room in the first floor, that doesn't make any sense. Right. Um, so yeah.

Uh, what I would say is like, if you wanted a tiny little universe, that's just like just outside of earth, you know, really, really small, what happens if you try to make the universe very small or even not expanding is that the force of gravity leads the universe to collapse. So in order for it to be a stable universe, that's going to support stars and planets. You have to have an expanding universe.

And that's exactly what we have. So now the expanding universe on its own doesn't

mean the universe is going to be super duper big. But when you consider the next point, which is that it takes a long time, successive generations of stars living and dying in order to create the heavy elements that we need for complex life.

Then you realize why the universe is so big. So the first generation of stars doesn't have the heavy elements that you need in places that you need them to be. So you're, you need to wait a couple of generations in order to develop galaxies like the Milky Way that that are life friendly.

And while you're waiting for those generations of stars to appear, the universe is expanding. So then you appear, God's done all this work for you to make this wonderful house for you. And you're like, why is it so big? You know, it has to be this big.

Okay. Right. Right.

Excellent. All right. Great.

Well, what about silicon based life? Yeah. So some people, once they realize the trouble that you need to create carbon, they go, well, let me just kind of get out of this fine tuning to create carbon and oxygen. Maybe life could be formed out of silicon.

And that's, that's not crazy because silicon kind of does work a little bit the way that carbon works and that it's like the hub that you plug other things into and all the, all the different sugars and other and proteins and molecules. But the problem is silicon isn't as good as carbon for this. So the molecules that you can form with silicon are too unstable.

And the second thing is suppose you did make a life form out of silicon, that life form would have to breathe. Okay. And breathing in a carbon based life form produces carbon dioxide gas.

And it's pretty easy to expel gas, you know, from your nose or from your mouth. But if you're trying to make silicon based life, then the product of breathing is silicon dioxide or SiO2. And that's a solid.

So I don't want to go into too many details, but you have to get that solid out of you somehow. It's not nearly as easy as breathing out SiO2 or carbon dioxide gas. So, but there's more.

If you have silicon, you actually have to make carbon on the way to making silicon. So you're not going to get out of the problem of the fine tuning that we talked about before to make carbon. So in any universe where you have silicon, you're going to already have carbon.

So you're not buying yourself anything by trying to avoid the fine tuning to make carbon. Yep. Okay.

What about this kind of pushback argument that we've been hearing a lot more lately? What about the multiverse? Yes, the multiverse. Okay. So the problem with the multiverse is that you in principle, you cannot see out of your own universe.

So you can't test to see if there are other universes. So sometimes when I say that, I say, well, the multiverse isn't testable. Then the critics will come back to me and they'll go, well, God is not testable.

But then you have to remind them that you're giving them evidence for a design argument that is testable. Right. Because not only are we showing that the universe is designed, but if we were arguing a little more on this, we would make the point that Guillermo Gonzalez and Jay Richards make that the areas in the universe are the best for living are also the areas in the universe that are the best for making scientific discoveries.

We kind of talked about that a little when we talked about eclipses. So the places where eclipses occur are also the best places for discovering eclipses. Like you have to have them happening before you can study them.

And I think the designer makes us live in places where eclipses happen because he expects us to study it and deduce things like the origin of the universe and the fine tuning. And then we're start thinking, oh, so this isn't a random universe at all. Somebody has done a lot of it's the birthday party, right? Somebody has done a lot of work.

Right. Exactly. Yeah.

And you can actually read a lot more about that in a book called The Privileged Planet by Guillermo Gonzalez and Jay Richards. Yes. And there's a DVD.

If you don't want to go through the whole book, get yourself the DVD. Yeah, or both. Yeah, or both.

I've got both. Yes. So, but there's more to say about this multiverse.

Okay. Okay. So in order to generate multiple universes, you have to have some kind of theory about how you're going to do that.

And the most popular model is called the chaotic inflation model. And this model has a mechanism for generating universes. Okay.

But the problem with the mechanism that they propose is that it requires fine tuning. Right. So you're not going to escape the fine tuning by going to a multiverse.

It's going to require more. It's going to require fine tuning. So then there's another problem.

I don't want to go into this because it's a bit confusing and weird, but it's called the Boltzmann brain problem. I want to skip over it. But if you want to see it played out in a real debate, you can watch the debate between William Lane Craig and a theoretical cosmologist named Sean Carroll.

And William Lane Craig brings that up as an objection to the multiverse. And while we were talking about what to include in the show, we were looking at paper scientific papers where they were talking about the Boltzmann brain problem as a defeater for the multiverse. Yeah, excellent.

Okay. Well, how about this objection? Why say the universe is designed for life when so much of the universe is inhospitable to life? Yeah, we kind of already talked about why is the universe so big, but like, why is the areas outside of our planet so inhospitable? So the first thing I thought of what I thought of this is I'm actually working on a web application right now in my job. So I'm kind of doing the part that you can see in your web browser.

And then I talked to the backend for things like database work or payments or things like that. So I hadn't worked in the front end for a long time, but this involves technologies like HTML, CSS and JavaScript. And it's all the rage now to use a framework called React.

And so I've been trying to learn React from scratch just by looking at tutorials. So when I'm busy writing this code, they don't go, Oh, well, wintery takes six months off and learn how to do React. No, they just give me a pack of cards and they go get to work lazy.

So I've been right. I had to do react at the beginning of this project and the react code that I was writing then wasn't really good. Okay.

Now what I'm writing it and I look back at what I wrote then I'm like, I hope no one ever sees this. So the point of this is that even if you say, well, I don't like the way the universe works so much of it is inhospitable. That doesn't get around the fact that the fine tuning to allow complex life to exist isn't evidence.

So you still got the problem of design. But what you're saying is, well, I don't like the parts that seem suboptimal to me. That's not an argument against design.

It's an argument against perfect design or perfect design as you define it. I personally think that the universe is great being big. And this is a little part for us.

It kind of reminds me of like a gardener, you know, a gardener making a garden in a jungle. Everybody walks through the jungle and goes, this doesn't look designed. And then they come on the garden and they go, wow, this looks designed.

And then there's like, where, where they're like, where are they? Where's the gardener? Right. Yeah. And you mentioned a little phrase a second ago that I think is worth bringing

up.

You have to know the designer's purpose in order to be able to say that the design is suboptimal. Right. Yeah.

Right. So you can't fault a giant, you know, Subaru for not fitting in a compact car parking spot. It wasn't designed for that.

You certainly can't say, well, it obviously wasn't designed. That's ridiculous. Yeah.

That's like an engineer's perspective, right? When you're designing a laptop, if you say, if you design the laptop and then somebody comes along and goes, why doesn't it stay on for forever? You go, well, I needed to make it small so you could take it on a plane and they go, well, I want it to last 50 hours. You know, you had to do that. You'd have a battery that you could, you know, would be like, uh, you know, as heavy as a barbell.

So you're always making compromises when you're designing something and optimizing one thing at the expense of another. It's called making trade-offs. And this is how we design software and design electronic devices in general.

Anyway, like I said, I happen to think that having a small, well tended garden in the middle of a jungle is going to make the people who are the flowers who are living in the jungle pretty pleased that somebody is looking after them and suggests that there's a gardener. So that might be what God is doing there. And I also think that if atheists got their wish and the universe was just large, but filled with habitable places, they would just go, well, everything everywhere is habitable.

Why do we need a God to make habitability if everywhere is a good place to live? Clearly habitability is just natural and normal. So if you want to hear more about these arguments, actually, there's a great debate between William Lane Craig and Christopher Hitchens that I think is pretty entertaining as well as informative. Yeah.

OK, so let's move on. So I wanted to ask you a question about this birthday party example that you had. So suppose it was your birthday party and everybody did all this work for you, you know, like balloons and big banner and gifts you like and your favorite activity.

So, you know, suppose that was what your birthday was like. And then at the end of your birthday, you just told everybody, oh, nobody planned this. This was all just a big coincidence.

Like, why do you think somebody would say something like that after other people did all this work to make their birthday special? That's a great question. I think that one reason might be in gratitude, not wanting to be obligated to anybody, not wanting to thank anyone or to acknowledge that someone else did something for you. But it's a terrible

thing to want to refuse to acknowledge someone's design work in order to avoid being thankful or being obligated to them.

I mean, but I think that's why atheists who who deny the scientific evidence for fine tuning do it. They want to preserve their autonomy from God. They want to chase after happiness with the life God has given them.

All the good things God has given them in the world God has given them. But without having to ask the big questions about science and meaning and purpose, it's certainly without having to live the you know, the way he says his best. I think they're scared of being in a relationship with God and having to respect the different personality and values of another person.

That person being God. Yeah. Like stick up for stick up for your friend who's given you a lot when it's not good for you to do it because, you know, you know, they may not like you if you stick up for him, but you're just thinking, well, he did a lot for me, so I'm going to defend him.

So it sounds to me like all of this ignorance of science or kind of refusal to bound your beliefs based on what scientists are telling us what the evidence is telling us. It sounds like it's like being ignorant on purpose. You're trying to keep the God who was there and who was not silent at a distance.

Yes. Very convenient. Yeah.

I think everyone should read Romans one. And I think it gives us a lot of insight as to what's really going on here. Atheists aren't just good people who are totally open to the evidence for God.

They're actively speculating about how to explain away the evidence that we have so that they're free to make up their own rules, live however they want, congratulate themselves for achieving their own made up goals. Yeah. About that word speculation, it makes me think of 2 Corinthians, I think 10 versus 3 to 5. Is that it? Yeah, I think.

Yep, I think. Yep, exactly. Yeah.

Yeah, it says the role of Christian defenders is to cast down speculations or any knowledge, any speculation that raises itself up against the knowledge of God that yeah. So you've got, you've got non Christians who are going well, yeah, sure. If I look at the universe, that's going to give me knowledge about God like Romans one says.

But what if I just invent a speculation like molecules to man Darwinism or the multiverse or, you know, the transporter or what? I'm going to laugh at that joke forever, but, you know, whatever it's going to be, you know, to kind of keep God into this sense and not give him any credit, not have to care about, about what he likes and what he thinks. All

right. So one last question for you before we close.

So have you ever heard of this thing called the God of the gaps fallacy? Oh yeah, constantly. Atheists bring it up in conversations all the time with me. Are people who believe in God committing the God of the gaps fallacy, do you think? No.

So it's a good idea to tell a story about the progress of science when you talk to atheists. Atheists initially thought that the universe had always existed. And then we made discoveries that cast that into doubt.

Okay. We talked about that in our last show. Similarly, atheists thought that any universe would support life of some kind.

But then we had a lot more scientific discoveries. We discovered examples of fine tuning one after another, after another, after another. The story of science is the story of atheism of the gaps.

The more science progresses, the more atheists have to speculate in order to maintain their denial of the reality of a creator and a designer. Yeah, it's tough to say, but it really does seem like this is what we're seeing today. Okay, so that's probably a good place for us to end this episode.

We have more episodes in this series. We're going to be looking at more evidence and looking at what different worldviews claim about reality and then taking a look at what the evidence says to see who's winning and who's losing. So if you enjoyed this episode, please consider helping us out by sharing this podcast with your friends, writing a five star review on Apple or Spotify, subscribing and commenting on YouTube and hitting the like button wherever you listen to this podcast.

We appreciate you taking the time to listen and we'll see you again in the next one.