

But *Why* Do We Have Gravity? And Other Unanswerable Questions Four-Year-Olds Ask About the Universe

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My friend Elliot recently turned four years old. He has started going through a phase where he's really excited about outer space. Which is awesome, because I'm *also* really excited about outer space.

And so his mom, a friend of mine, texted me: Elliot is really excited about outer space right now. I told him you knew a lot about it and he's really excited to talk to you so you can teach him all you know about space!

"Awesome," I thought, "I do totally know a lot about space and I'm so totally gonna teach that four year old everything I know and we are going to play with his space play mobile set and it's going to be amazing."

But, you see, I had forgotten how much my friend Elliot likes to ask "why." Because back in the summer when we used hang out every day I made a game out of it, trying with each successive "why" to really get at what the answer to his question was. I liked doing this because it forced me to think about things that seemed so normal to me.

"Otto, why is my mom taller than you?"

"Because adults come in different sizes."

"Why do adults come in different sizes?"

"Well, because my parents were probably shorter than your mom's parents?"

"Why are you parents probably shorter than my mom's parents?"

... And so on.

I would have thought that after six months he might have grown out of this phase. Those of you with children will not be surprised to learn that he has not.

So Elliot and I were hanging out and I asked him if he knows the planets and he names them for me, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune (Sorry, Pluto lovers). I'm impressed with his memory. I always have been. Then he turns the tables and starts asking questions to ME:

"Otto, why are there planets?"

Ok, I think to myself, I've got this. I understand the universe.

“Ok, so, planets are made up of rocks and dust and stuff that all stays together because of gravity.”

“What’s gravity?”

“It was keeps us on the earth right now. It’s what stops us from floating up in the air. It’s what makes a ball fall to the ground when you throw it.”

“Why does it do that?”

“Because there’s a force that pull everything together called gravity.”

“But *why* do we have gravity?”

“Um...”

Every time I play this game with Elliot there comes a point where I just want to yell “Because that’s the way it is!”

So, I finally just answered honestly by saying “I’m not sure why we have gravity.”

And though this might seem like a normal exchange between an adult and a child, Elliot just shrugged and went back to playing with his play mobile. Meanwhile I was having an existential crisis precipitated by the laws of physics.

So like anyone who has questions about the world does in 2017, I immediately came home and Googled “Why do we have gravity?”

This yielded a whole bunch of interesting and thought provoking results.

Through this I learned that gravity is not best described as a force, but rather as a consequence of the curvature of space time as a result of an uneven distribution of mass/energy, according to Einstein’s Theory of General Relativity.

Which is great and all but I *barely, barely* understand what this is trying to say and I have twenty-seven years of life and two years of college level physics classes over Elliot. This is definitely not going to make sense to him.

And the truth is, that even if I *did* fully understand this, even if I *was* a physicist, an astronomer, a cosmologist, I feel pretty content that I still wouldn’t be satisfied with that answer.

The answer that gravity is caused by the curvature of spacetime. Because it still doesn’t answer WHY we have it.

Ursula Goodenough, one of my favorite theologians, who is also an evolutionary biologist, summed this up well in her book *The Sacred Depth of Nature* when she talks about the great Mystery of why there is something, rather than nothing at all.

And this questions of *why* there is anything at all is a question that's plagued me for as long as I can remember. And, in our reading today you heard, it's also a question that seems to have plagued your former minister, Rev. Deanne Starr.

And one of the best things about being human is not only that we can have these questions about our existence, but that we can make theories about them, and we can study these theories. We can create new hypothesis. We can observe. We can use the scientific method.

Religion, throughout history, has always been, in part, about cosmology, the study of where we came from, and who we are. As human beings started to wonder about our origins, we began to create theories about our environment. About our world and our universe. And for most of human history so many of those theories and ideas have been untestable.

The Bible, the Old Testament or Hebrew Scriptures, for example, describes a theory of the universe in Genesis 1:7-8. God is said to have "made the dome and separated the water that under the dome from the water that were above the dome. And it was so. God called the dome Sky."

Right, so the waters of earth are separated from the water in the heavens with a kind of inverted bowl over our flat earth. With God and heaven existing in the waters beyond the dome and all of humanity existing underneath it. And it was all created by God.

These days, cosmology tends to be the realm of the scientists. And I'm sure you're all familiar with the current prevailing cosmological model: the Big Bang theory. The rough gist is that about 14 billion years ago a very hot, small, dense singularity expanded very quickly to become our expanding universe as it is today.

But the thing about the Big Bang theory, is that it doesn't actually explain *how* or *why* the universe was created. No, it's actually a model for the *history* of the universe. It used to be really tiny, and then it exploded into a the vast universe we have today. And I'm talking *really* tiny. Like atoms couldn't form. Like the entire universe was inside something so small we could hold it in our hand. But before that, before that moment that the singularity exploded, we don't really understand what happened. We don't understand how or why this was created.

And so my friend Elliot's questions about gravity quickly pulled me (ha! Gravity pun) it quickly pulled me back into an existential slump that was prevalent for most of my teenage years. Like, *why* is gravity a thing at all? Why are the laws of physics what they are? What is there anything at all? The fact that there's *something* just doesn't make sense. I don't get it. And I want so desperately to get it.

And you see how this line of thinking sort of cascades. And for me, if I spend too long here, too long in this frame of “oh my god why are we here”, I can easily descend into nihilism. It’s just random that we’re here. There is no meaning or purpose behind it, so what does it matter what I do? It’s all meaningless anyway.

And so this reading early, by Rev. Deanne Starr, where he talked about the questions of the universe being unanswered, I get it. And I read another one of his sermons and he is wrestling with the same question around the question of evolution. If we are a result of the random mutations of evolution, what’s the point? How can we make meaning in our lives?

And so this is why I think it’s so interesting that religion historically has *not* simply been about theorizing about our origins, but also about creating meaning, and examining the ways in which we act in the world.

If there is a creator God or Gods, then surely that creator has a purpose for our lives on earth. An idea of how we might behave, right?

But these scientific explanations of the history of the universe, they leave much to be desired in this realm.

If you’ve watched the show *Cosmos: A Spacetime Odyssey* with Neil Degrasse Tyson, which is one of my favorite spiritual texts, you might have seen the cosmic calendar.

If you think of the entirety of time from the beginning of the universe to now as on the scale of a calendar, with 12:01 on January 1st being the birth of the universe, and right now being December 31st at midnight, human beings came on the scene two minutes ago at 11:58.

So, speaking for myself and everyone in this room and everyone currently on this planet, it's been like **snap** that's it. We're barely a blip on the radar screen.

Or as my dad used to say to me "You know nothing but a grain of sand on the big beach of life." And when he said this I imagined myself as a tiny speck of sand on the vastness of a beach.

So why does anything matter? I'm never going to know *anything*.

You see this line of thinking, this nihilism can lead to some difficult places.

Why should I care about people? We're all just meaningless atoms anyway.

What should it matter that there is injustice in the world? Human are barely anything in the scheme of the universe.

I know that for me, personally, I had to almost separate out these two parts of my life and my brain. When I started asking too many of the "why" questions about the universe, I'd fall into despair. I had to find my meaning elsewhere, separately. I felt awe in thinking about the universe, but I didn't make me feel particularly inspired to do justice work, or to be a better person, or to treat others as I would myself.

Here's the thing I think I missed, however. That those why questions don't just apply to the universe. Those why questions apply to everything we see and take for granted.

Elliot and I were on the T one day (because Elliot at the time was going through a trains phase) and the announcement came on and said "No smoking please, and thank you for riding the T."

"Why does it say no smoking please?"

Oh boy, now I was going to have to explain smoking to a four year old?

So, I tired. "Well, Elliot, some people use a stick that has smoke on it and put it to their mouths and if they use it inside the train then we all have to smell and we wouldn't like it."

"Why would some people use a stick that has smoke on it and put it to their mouths and if they use it inside the train then we all have to smell and we wouldn't like it."

"Well, some people like it, but it's really not good for you."

“But why do some people like it?”

Oh dear. I don't know. I just couldn't figure out how to tell this kid that smoking was bad for you, but people did it anyway. It's really difficult to figure out the nuances of why about something is like that and explain it to a four year old, who's not even my four year old, and then why someone would make an announcement about it.

For me, I just go on the T and filter the announcement out. But again, I found myself wondering about smoking in a way that I hadn't thought about in years, maybe since I was a kid. My adult brain had pretty much accepted: smoking is bad for you, people do it anyways.

But think of how many other things we take for granted without asking why. Have you ever tried explaining racism to a child? It just doesn't make any sense to them. Elliot just keeps asking why.

So what if we took our institutions and social norms and started asking deeper whys about them? Why are there more white men in leadership positions in this country, proportionally, than other groups? Keep going on that question. If you keep asking why and I challenge you to come up with an answer that wouldn't feel just as unsatisfying as the fact that we don't know what sparked the big bang. Sexism? Racism? These are all things that we've constructed. It's made up. And because of these made up rules about who we are and what our place is in society, certain people gain power and others don't have access to it.

But the best part about asking these questions is that you start to realize that, unlike the laws of physics, our unspoken rules for who should and should not be in places of power and privilege are changeable.

So perhaps the gift in these questions of children, of the inquisitive four year olds in my life, and probably in yours as well, is to challenge us not necessarily to understand our universe better, but to examine the ways in which the things in our world that can be changed, should be. Because that's where meaning is made.

The fourth principle of Unitarian Universalism is the responsible search for truth and meaning. This is a place where we can find that meaning. In realizing that some of these so-called truths that we take for granted do not have to be so. We find meaning by examining the life we live in this world.

Friends, even though the origins of the universe are so vast and beyond our knowledge, even though our lives on this planet are but a blip on the radar screen, to us they are all of existence.

Say what you will for humans putting themselves at the center of the universe, but for each of us, our lives, our precious time on this planet, is all that we have. And we deserve to make as much out of it and to live it with as much purpose as if it was the entirety of the cosmic calendar.

Let us search for truth in the stars and meaning in living out a life in accordance with our values.

Let us say together amen.

Amen.

Let us sing Blue Boat Home.

