# The Nature of Mind, Body, and Soul

# https://mindmatters.ai/podcast/ep206

### Austin Egbert:

Greetings and welcome to Mind Matters News. This week, we have Dr. Joshua Farris, professor of Theology of Science at Missional University, joining Dr. Michael Egnor to discuss the nature of mind, body, and soul. Enjoy.

### Michael Egnor:

And welcome to Mind Matters News. This is Dr. Michael Egnor and I have the great pleasure today to talk with Joshua Farris. Dr. Farris is a professor of theology, and I think it's going to be a wonderful discussion. The topic today is why Cartesian dualism. In this episode, we'll discuss the merits of the theory of the mind-body relationship in contrast to alternative viewpoints, such as materialism, hylomorphism, and Berkeleian idealism. Materialism is a dead end because of the phenomenon of quality, of qualia, rather, and the hard prop of consciousness. There's also a quality problem in materialism, too, but that's a different issue.

# Michael Egnor:

Some form of dualism or immaterialism can satisfy these concerns. Cartesian dualism has become sort of a whipping boy in philosophy, theology, and the sciences, even more so than it's cousins in the dualist family. Why is this? Does Cartesianism have any advantages over the alternatives? Joshua Farris has argued yes, in fact, it does. And there's one feature of persons that seems to acquire Cartesianism. But Cartesianism is compatible with versions of idealism and possibly even hylomorphism. One of the interesting implications of Cartesianism that needs spelling out is it's theistic grounding. Some consider this a weakness, but others see this as a welcome and attractive feature of Cartesianism.

# Michael Egnor:

My guest is Dr. Joshua Farris. He is a professor of Theology of Science at Missional University. He is also a freelance writer for several academic news outlets on topics of the souls, science, faith, and public theology. He is a consultant writer and product developer for raising families. He was the executive director at Alpine Christian School and a part-time lecturer at Auburn University at Montgomery. He's also the director of Trinity School of Theology. Prior to that, he was the Chester and Margaret Paluch professor at Mundelein Seminary, University of Saint Mary of the Lake, and assistant professor of Theology at Houston Baptist University. He's authored a number of volumes, and he is co-editor of The Routledge Handbook of Idealism and Immaterialism. And it is a great pleasure and an honor to have Joshua join us today.

# Joshua Farris:

Good to be with you. Thank you.

### Michael Egnor:

Thank you. So I'm fascinated by your insights into Cartesian dualism. And I'm, of course, very interested in the question of the mind-body relationship. For our listeners, what is Cartesian dualism, and how can it help us understand the relationship between the mind and the body?

#### Joshua Farris:

Yeah. Sure. Cartesianism is kind of a tradition. It is a tradition following from René Descartes. And so it's a tradition that's developed over time, and there are a few of us around today who defend some sort of Cartesian view. It's a tradition that's developed, and what that means is, and we can get into this. What that means is we're not signing onto all that Descartes said, of course. And we're not affirming all the naughty ideas that he had that have had a sort of denigrating view of the body or a negative influence on science and how we practice science, which there's lots of critiques out there in that respect. But it is within a sort of family of what's called substance dualism, a substance dualism view of human constitution. So if we're talking specifically about human constitution or locally, how it is that humans are composed or constituted, substance dualism is basically the view that there are two kinds of substances or two types of substances. In other words, property bearers with some intrinsic sort of unity to each.

#### Joshua Farris:

And so oftentimes, when you think of substance dualism, there's a property bearer of the soul or a mind that has properties of a mental sort. And then there's properties of a material kind or a body that is distinct from the mind itself. And so Cartesianism would be within that sort of broader family of substance dualism. And on a Cartesian understanding, there's something unique about the mind-body relationship in contrast to other potential variations of substance dualism. If you're following somebody like Richard Swinburne or John Foster, who are both Cartesian dualists of sorts, they would say, and I would tend to agree with them, something like this. That I am just my soul. I just am my soul. I am my soul that has a body or has some sort of singular relation or interactive relationship to my body, but, my body is not me, strictly speaking. I'm not an animal, as some other views would say. I am a soul, and particularly, I am my soul.

#### Joshua Farris:

This is what's important, really. The soul is the core or the essential part of me. It's the thing that carries along my personal identity. And so you might contrast this, say, with some sort of a thomis view that you might call some thomist and there's all sorts of different views out there. So I don't want to simplify it too much, but some thomists would say they are substance dualist themselves. And they would say that I am my body, but I am a particular kind of body that has a principle, a formal principle that does this sort of informing work of the matter. And so you might take it that when there is this composition of the material with this forming principle, we have a distinction between the material itself and the material as informed.

### Joshua Farris:

And so you might think of, for example, think of the marble statue where there's sort of the marble and it's sort of the material. And then there's this forming principle. And some would argue that on that basis, there is a substantial distinction between the two. And so some thomis would move in that direction. So that's distinct say arguably from a sort of more rounded, Cartesian view that says that I just am my soul. I am not strictly speaking identical to my body and how you work that relationship out between the soul and the body, well, that becomes a little bit more complicated and obviously there's different views on that. But, the important point is that I just am my soul and my soul is the core part of me that carries along my own personal identity.

#### Michael Egnor:

The thing that I think bothers me the most about the Cartesian view, and I should first say that I have a great deal of sympathy for it. And I actually think that thomism needs to be understood with respect for that view for several reasons. It allows thomistic perspective, I think, to hue closer to our lived experience. But, the first problem I have with the Cartesian view is that whatever value the Cartesian dualism has in understanding the mind-body relationship, I think it is a general metaphysical view, really deficient. That Cartesianism is bad metaphysics.

# Michael Egnor:

I think it's better mind-body metaphysics than it is general metaphysics, but I think the general metaphysics is pretty bad. Animals aren't machines. And things that exist in the world are a great deal more than just matter extended in space. And so how do you feel about the general metaphysical presupposition of Cartesianism? And if they are significantly deficient, does that make the mind-body aspect of Cartesianism less valuable?

#### Joshua Farris:

Yeah. So I think with respect to what I am committed to as a Cartesian, I am making a fairly minimal claim that maybe it can be shown that minimal claim has implications that are negative in the way that is often sort of characterized or projected back onto Descartes and the metaphysics that he inspired. But, it seems to me that the sort of claim that I just am my soul, is the sort of minimalist Cartesian commitment that I'm committed to that I think is the product of common sense. A sort of common sense epistemology. And it's the product of various arguments that we could get into and talk about that are not always readily hospitable, maybe to... Certainly not hospitable to materialism, but not hospitable, obviously hospitable to sort variations of thomis or thomis dualism.

### Joshua Farris:

So if we think about various views about mereological replacement and the modal argument. The modal argument, which someone might advance and say something like, if I'm the very same thing as my body, then whatever is true of me is true of my body. But, my body may survive without me. And therefore I'm not the very same thing as my body. There are certain modal intuitions that seem right and seem confirmed also by data that's out there like near death experiences and out of body experiences, as well as a theological tradition that I am committed to. And that is that I will exist someday. I hope to exist. I believe I will exist, disembodied.

#### Joshua Farris:

And so that Cartesianism is certainly more at home with, or provides maybe a better or stronger accounting for those sorts of modal claims that seem conceivable. So that minimalist commitment is, I think, what is really the strength of Cartesianism. But in that, I don't think I'm committed to say the idea that the world is merely sort of a meat machine. Or that the world lacks a sort of theology. Or that the natural world, that is in the natural organisms, physical organisms, are sort of just mechanistically explained all the way down to their sort of component atomistic parts.

# Joshua Farris:

So I don't think a Cartesian, at least as I've defended Cartesianism, I don't think that I am, or you have to be committed to those other sort of metaphysical commitments that are often characteristic of DesCarte's larger metaphysical program. So I'm less interested, I guess, in defending those and more interested in defending this more core claim, this minimalist claim. So I could call it kind of a neo

Cartesianism. That's what I'm more interested in, this idea that I just am my soul. I am not a composite of my soul and body or mind and body. I am not a complex. And so my personal identity is not complicated in say the way that a materialist or arguably a thomis would be.

#### Michael Egnor:

I certainly agree that that's a strength of at least the Neo Cartesian way of looking at things. And it's a very real strength. It's something I think thomism is somewhat lacking. To me, the two great strengths of the Cartesian view is as you pointed out, it gives a more grounding to the sense that we all have, that there's an eye there. That there's a single metaphysically simple unitary thing that is us.

### Michael Egnor:

The thomis view can, I think, has a great deal to say for it. But, I've always wondered myself, where's the eye in all of this? And we all have that sense of what Peter Craft calls, the heart of who we are. And it's not just one of the powers of our soul, it's us and where's us? And the Cartesian view helps with that. The other aspect of the Cartesian view that I think is particularly strong is, it seems to accord very well with near death experiences. And there's a lot of things in near death experiences that I think are much more readily explainable from the Cartesian view of the soul that it's from the thomistic or other kinds of views of the soul.

#### Michael Egnor:

One problem with the Cartesian view is that it seems to make it difficult to know why, or in what way we would know a particular soul was associated with a particular body. I mean, let's say that my friend, Joe and I came into work one morning and Joe said, well, I'm Mike now. His soul is here. And I said, well, I'm Joe. We Switched last night. And how would you disprove that? I mean, if the body is just the ship that the soul is piloting, well, pilots can switch ships. And that gets to the modern problem that we're having with transgenderism. That is that if the Cartesian view is correct, a person who's transgender could very readily say, well, yeah, I'm a woman's soul in a man's body. Whereas the hylomorphic view would be, no, you're not. That your body is very much a part of you and you have a spiritual or psychological problem, but you can't be a woman's soul in a man's body.

#### Joshua Farris:

Yeah. So that's an interesting problem. So I think there certainly are those intuitions that I find appealing. Those intuition, that sort of body swapping intuitions is what you're talking about. And I'm reminded of that movie being John Malkovich. Have you seen that movie?

# Michael Egnor:

No. But, I've heard about it.

#### Joshua Farris:

Okay. Well, so it's a fascinating film because there's John Malkovich, there's this 33 and a half floor or something like that. People can actually go up to that partial floor and there's this little portal and they can slide down this portal and they end up somehow accessing some of the items of John Malkovich's perception. And so they're able to perceptually experience life through his body. So you have females actually, who are able to access. And so it raises this sort of similar problem that you're talking about. And certainly that fits more readily with the sort of Cartesian view than the thomis view and that's a concern.

#### Joshua Farris:

So I think obviously body swapping intuitions are more readily at home with Cartesianism and that's why there are these intuitions that we have when we think about the possibility of existing or persisting out of the body or in a sort of near death experience. I think that's kind of the trade off. But I don't know if it's as severe as people have made it out.

#### Joshua Farris:

If we tweak our sort of Cartesianism along the lines of something like an emergentist view. So if we think about, say something like William Hasker's view. Hasker affirms a kind of emergent do list view, where he says that or the mind is a phenomenal unity of consciousness. That it's the sort of binding force or the thing that provides unity to the items in one's phenomenal consciousness. Kind of like if we think about the body and the soul relationship, it's similar. He uses the example of the magnet and the magnetic field in which when there's certain conditions that are met, the magnet gives rise to this magnetic field. And so there's certainly a distinction between the two, but there is this close, intimate connection between the field and the magnet that are not easily separable.

### Joshua Farris:

I think most Neo Cartesians today, like myself, Richard Swinburn, John Foster. No, John Foster takes his view in an idealist direction. But I think most would affirm something like an emergentist view that brings the soul, at least functionally speaking, brings the soul more closely connected with the body. Such that we can at least intuitively say it makes sense that when I hit my head on the top of the door, it's actually affecting my states of consciousness. Or like the last couple of nights when I've been up really late or early into the morning, it affects my states of consciousness, the way that I treat my body. And certainly that's the case.

#### Joshua Farris:

If we take it that there is some sort of emergentist aspect to how the soul comes to be in the world, I think we can provide some sort of accounting that brings the soul more closely aligned with the body that we've been given. That I just common sensically take for granted when I interact with the world, through my body and through the various controls of my body. Somebody like Gilbert Ryle, the picture isn't quite as simplistic as say a person that's in a ship who has these various controls in the ship. But, this person could actually step outside the ship and jump in another ship. There's actually a more fine grained, functionally integrated relationship between the body and the soul.

### Michael Egnor:

But, wouldn't that just be hylomorphism? If you get to the point where you're really sort of talking about form and matter, which is obviously the more fine grain functional relationship, then it would just be a hylomorphic view.

### Joshua Farris:

Well, maybe. I mean, I guess I was taking the hylomorphic view to implicate a more robust ontology of matter form-

### Michael Egnor:

Right.

#### Joshua Farris:

... relationship. Certainly most emergentist whether they're sort of nonreductive physicalist or they are do list like William Hasker, the sort of strongest or sort of view, certainly they would be reticent to call their view hylomorphic.

### Michael Egnor:

Right. I've long had problems wrapping my mind around emergentism. It sticks in my craw, as one might say. I don't understand it. I don't understand what emergence is. And I don't see how it is a level of explanation. It seems to me kind of magical. What is emergence and of what value is it in understanding things like this?

#### Joshua Farris:

Yeah. Well, so the way that Hasker and others define it, Timothy O'Connor, is obviously one defender of what he calls an emergent individualist view. Which is just diversion of nonreductive physicalism, which says that there are these properties or powers that at some suitable level of complexity give rise to a suitable level of neurocomplexity. Just gives rise in a law like fashion to consciousness and free will and these sorts of perspectives or these sorts of powers. And so Hasker is building upon that emergentist set of literature and saying something similar in that what actually emerges is actually substantial.

#### Joshua Farris:

And so what is actually required if we are going to have say, downward causation or a freedom of the will or a first person perspective is a substance of a sort that emerges from a suitably complex neural structure and central nervous system. He says that what we need is something like a thisness. He calls it some sort of phenomenal thisness. And this is where phenomenal consciousness becomes really important for him and why he ends up affirming kind of substantial dualism. Because he doesn't think that phenomenal consciousness can be made sense of as a nonreductive physicalist. But, rather it requires this additional feature that binds together the items within one's phenomenal consciousness.

#### Joshua Farris:

The fact that I can go out and experience a green pasture, and I experience all the elements in the green pasture, including sort of wind blowing, the flower out in the middle of the green pasture. I experience it as one unified field and I can isolate and pick out various items within my field of consciousness. But, there is something about that, that is unique and unlike anything that we have in the physical world that requires what Hasker would say is a thisness. Yeah. Emergence may be magical. The kind of emergence that I am committed to is a more sort of minimalist commitment, emergence's commitment that could be accounted for by way of simply just theistic contentions. Why am I connected to this body? Well, simply as John Foster would say, because God set it up that way.

#### Michael Egnor:

And I thought a great deal about...

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#### Joshua Farris:

... because God set it up that way.

### Michael Egnor:

I've taught a great deal about emergence. Everybody has their bug bearer, and it's one of my bug bearers. Whenever I hear it described, at the end of the description I really feel as though I don't know any more about what's going on than I did before the description. It doesn't seem to explain anything. What emergence is from my perspective, is it's a psychological trauma, meaning it's a discovery that something is behaving on a large scale that you didn't expect from knowledge of its behavior on a small scale. Why would H2O molecules feel wet when you put them together to make water. There's nothing about the H2O molecule itself that would make you think of wet. When it all goes together, it does feel wet. That's an emergent property of water molecules, is that they feel wet when you get a lot of them together.

# Michael Egnor:

But that's just a psychological thing. There's nothing magical that's happening when the water molecules get together. It's just that psychologically we didn't anticipate that it would feel wet, and hey we're surprised it does. If emergence is really a psychological phenomena, which again if emergence is really a psychological phenomena, which again I think a pretty good case could have been that it is, but it can't be used to explain the mind because it presupposes the mind. To me, it's smoke. It's just smoke and mirrors. It doesn't really explain anything. Certainly, the things that emergence tries to explain are fascinating and important things.

# Michael Egnor:

For example, the unity of conscious experience is very important. I don't think saying that's an emergent property explains anything. I don't get the explanatory power.

Joshua Farris:

Yeah.

### Michael Egnor:

One thing that has led me... I don't have the same problem with Cartesian dualism that a lot of, for example, material has had, like problems with the interaction problem and so on. I think the interaction problem is sort of overdone. That is, that if one accepts a mechanical understanding of nature, then yeah there is an interaction problem because if the mechanical understanding, a lump of mass to has to hit another lump of mass to make something happen. Obviously, that can't be the case with Cartesian dualism.

### Michael Egnor:

If one accepts a hylomorphic understanding of causation, which includes formal and final causes, then immaterial things can cause all kinds of things that don't involve matter hitting matter. So, I don't think the interaction problem is such a big deal. Although, it's not a big deal if one does take a somewhat Aristotelian way of looking at nature. The big catch I have with Cartesian dualism is that it's too close to Cartesian metaphysics. I think Cartesian metaphysics is a catastrophe.

# Joshua Farris:

Yeah, maybe you could affirm... The kind of Cartesian commitment that I have, I could easily affirm a sort of Berkeleyan and Materialist conception of how God sets up the world. I think I'm already as a sort

of theist Cartesian, already committed to some version of idealism as it stands. At some level, God is the ultimate God's mind and his intentions are the ultimate causal explanation of the world. That mind is what, at least in part, explains values and the meaningfulness of natural events that maybe themselves don't have apart from God's intending or conferring. They only have meaning in that sort of theistic context where God intends them in that way, something like a sort of personal idealism.

### Joshua Farris:

The commitment that I have to Cartesianism is fully compatible with that, but it's even compatible with a more robust Berkeleyan conception that says something like that bodies or material really is a fiction. At least, a fiction in an ultimate sense. There is no substantial existence to the material. The material itself is the most phenomenal quality that God communicates to creative minds. So, we experience the physical world as extrinsic or external to our minds, but it is something that God communicates to us that we experience, we have phenomenal experiences of. The view that says that I am strictly speaking identical to my soul or my mind, that is at the base what explains my consciousness and my freedom, freedom of will, and the fact that I am me and not someone else. That's the important Cartesian claim that I think is compatible with the sort of Berkeleyan idealism. I haven't gone there yet, but it is compatible with it.

# Michael Egnor:

Yes, I do feel the sense that we are ourselves is something that is not well accounted for in the hylomorphic understanding. That is a strength of the Cartesian perspective.

### Michael Egnor:

Josh and I were just talking briefly about one gap in the hylomorphic Thomist way of looking at the human person. That has always bothered me. I get the sense that Joshua has the general perspective. That is, that there isn't so clear an I, kind of a metaphysically simple me, in the Thomistic perspective. To the Thomist, a human being is a composite of body and soul. That's always bothered me. Peter Kreeft, who's a philosopher and theologian at Boston College, has described this I as the heart. There's a regular reference to it in the scriptures.

#### Michael Egnor:

That makes a lot of sense to me, but I'm not sure that Thomism has worked out that notion of the heart. Could you, Joshua, see a Thomist Cartesianism? Could the two be blended in a way that did justice to both?

#### Joshua Farris:

Possibly. I haven't seen anyone develop anything like this, maybe because of the respective baggage with each tradition that's there. Nobody's tried to work this out. Obviously, you've mentioned the challenges to broadly Cartesian view, especially to Descartes, I think less of a problem for the Neo-Cartesians that are developing the view today. I'm not sure that the commitment... Sort of the min/most commitment that I have to the idea that I am my soul sort of has the same baggage or implications.

#### Joshua Farris:

It seems to me that you could affirm all sorts of specific views about the body itself, the nature of the body, and be a committed Cartesian in this way. This is the strength, and I think this is the bigger challenge. The bigger challenge would be more a Materialist or a Thomist to come up with some sort of

accounting of personal identity. That seems to be outside of the realm. Or, seeing Emergentists or Non-Reductive Physicalists to come up with an accounting of personal identity. It just doesn't seem like we have any resources to do so, to sort of do that. It seems to me that we could have a Cartesian intuition. We could recognize the unavoidable Cartesian Cogito assumption, or this basic metaphysical assumption that I am me, I am my soul.

#### Joshua Farris:

I am not my composite or my animal that has this unique formal principle in it. But I am my soul that can lose parts and physical parts, and remain me, and could even exist in the afterlife, or disembodied. That seems the harder problem to me to explain on other views. It seems perfectly compatible that you could have a sort of more a robust Neo-Aristotelian view of the body, or you could have a view of the body that is a complex set of phenomenal properties, something like Berkeley's view. Or you could affirm something else that there are these higher order theological principles that are organizing the body that I interact with. That doesn't in any way undermine the sort of Cartesian intuition.

#### Joshua Farris:

But again, I think as a Cartesian, one could have a robust functionally integrated relationship with the body that is meaningful and robust, and doesn't denigrate the body to mere machinery. As a Cartesian also, I don't think I'm committed to even Descartes claim that the beasts are mindless or soul-less. If they do have some sort of consciousness, or first person consciousness in particular, then they would have a soul like I do that would have been created by God. I think that's okay.

### Michael Egnor:

What has led me to a Thomist view, and I must say that had it not been for neuroscience, which is what led me to a Thomist view, I would probably be a Cartesian, because I do agree that there's a great deal of safe work. Although, my sense of Cartesianism is that the closer we get to Berkeley and idealism, the better Cartesianism gets. My sense is that's not idealistic enough. It's really the Cartesian understanding of matter that bothers people, whether the Cartesian understanding of the soul.

### Michael Egnor:

I don't know that they're so separable, meaning that part of the pond, meaning that if there's a metaphysical glitch in general Cartesian metaphysics, it really impairs the Cartesian understanding of the soul. Whatever the body, mind, soul, relationship is, I think we would all agree that it needs to be fit in as a coherent whole with nature. I'm not a Naturalist, but we are obviously a part of nature in a very meaningful way. The whole metaphysical view has to work for me. I think idealism is very nice that way in that I think you could get it, a consistent coherent metaphysical perspective from a Berkeleyan metaphysical way of looking at things. You can do the same with Thomism. I don't think you can do it with Cartesianism.

#### Joshua Farris:

Let me ask you a couple of questions. It seems to me that my reticence to move in the direction of a sort of Berkeleyan, or I guess you might call it Cartesian idealist view that has a Berkeleyan flair to it. Berkeley doesn't specify in a robust way, from what I recall reading, in a robust way these sort of individual essence, or individuality, or the particularity issue. That just kind of naturally comes out of a Cartesian way of approaching these issues.

#### Joshua Farris:

It seems to me the reason why I've been reticent to go on a more robust idealist direction is that... This is getting into your specialty. This is out of my specialty. In neuroscience, you have these split brain experiments. You have evidence that suggests that there are split perspectives that can emerge or causally come about as a result of the split brain. You have other neuro scientific experiments that suggest similar phenomena, which seems to support something like a more robust kind of substantial dualism that has not had... Maybe on idealism. That's an open question. I'm sure a Berkeleyan idealist have ways of explaining that, but it doesn't seem to be intuitive, or the product say of common sense.

#### Joshua Farris:

This is another larger issue with Berkeleyan idealism, or sort of similar view, is that it just isn't the product of common sense. It's not necessarily inconsistent with common sense. Unless I have some sort of overwhelming reason to pick up a view, a theory, that makes better sense of the scientific data, I'm just inclined to take a more common sense approach and say, "Yeah, we have these two substances. Neuroscience seems to support that when something happens to my brain, it affects me in my conscious state functionally. Or at least it affects my perspective," which there's a distinction there between perspective and consciousness.

#### Joshua Farris:

That seems to be more naturally at home with something like Cartesian dualism rather than a sort of idealist perspective that doesn't give substantiality to the body.

#### Michael Egnor:

I think the strongest argument from science for idealism, and quite honestly I think this is decisive, or at least at our present level of science, is an observation that I heard about years ago in college that fascinates me. It still fascinates me. That is, when you look at the quantum mechanical world, or the world on the quantum mechanical level, matter disappears. It is most basic in it's most detailed reality at the quantum world. Nature is an idea. It's not material. Electrons are not little balls of things. Electrons are ideas. They're ideas expressed by Schrodinger's equation.

# Michael Egnor:

For example, when you look at a reference book and it gives you the mass of an electron, it doesn't say which electron because if you want to know the mass of a billiard ball, you have to say which one, because they'll be a little different from ball to ball. But there isn't any difference from electron to electron. There's one mass. People have even said, "Do we know that there's not more than one electron? Could it just be one that is popping up everywhere?" So, the whole notion of individuation of matter disappears at the quantum level, which is a very idealistic way of looking at the world.

### Michael Egnor:

I think quantum mechanics is sort of the scientific expression of idealism, and it's a powerful argument. You really can't make a case that matter is in the mind, because quantum mechanics is all mind. I think idealism from that perspective, I think idealism is true. I think it is in some ways the best way of looking at nature. But there are aspects particularly of the mind/brain relationship that strongly support Thomism. You mentioned split brain surgery, which is endlessly fascinating stuff. The original research on it was by Roger Sperry. He was a neuro physiologist who worked in the mid-20th century and won the Nobel Prize for this.

### Michael Egnor:

I've operated on and worked with split brain patients over the years. Sperry noted this too, that in some ways the most remarkable thing about them is not the stuff that Sperry found. What Sperry found, which were perceptual disconnections, were very subtle, very difficult to find. That's why he won the Nobel Prize for it, was that they weren't obvious. It took a lot of subtle research to find it. The most remarkable thing about these people is that they're no different after the surgery than they are before. The hemispheres of their brain are functionally disconnected, and they're the same person. It would be as if you took your chainsaw to your desktop computer and cut it in half, and it still worked just fine.

# Michael Egnor:

I'd say there's something awfully odd about this computer, because it shouldn't work just fine when you cut it in half, but it does. That's an awfully strange thing. It was so strange that it led Sperry to reject materialism. He had no use for it even, a Materialist view at all. But there is a split. Things do split, but what splits is only perception. Perception splits, but intellect doesn't split. A sense of self doesn't split. The will doesn't split. There's been fascinating follow up on Sperry's work by two researchers, Justine Sergent and Yars Pinto, who have looked at these patients more carefully and they found in an observation that's a tree. There's a brilliant experiment that a surgeon did with his patients.

### Michael Egnor:

What she did, is she took a bunch of split brain people and she presented letters to their visual fields in such a way that she was presenting different letters to the isolated hemispheres, like your right hemisphere might see a K and your left hemisphere might see an N. Your hands and your arms, of course, are controlled by the opposite hemisphere. So, in a person with split brain, their right hand is controlled by their left hemisphere, which sees their right visual field. So, their right hand can only respond to the right visual field. There's no connection, at least in no obvious connection, between the two of them.

### Michael Egnor:

So, what she did was she showed them letters and she'd ask them to push a button when they see a letter, blah-blah. Then she'd say, "I want you to push a button when one or both of the letters are vowels. When one or both of the letters are vowels, push a button." So, people would see these disconnected letters, these different hemispheres that aren't connected. When they would see a vowel they'd push it. They weren't told which hand to use to push the button, and there was a button at each hand. As it turned out, when they would see a vowel say in their left hemisphere, they would just as often push the button with their left hand as they would with their right hand. That is, they pushed the buttons regardless of what hemisphere was driving the hand. It was just 50/50, which meant that somehow the hemisphere that didn't see the vowel knew it was a vowel.

# Michael Egnor:

The interesting thing is, is that these people still had a perceptual disconnection, but they could figure out which one was the vowel, and that was not disconnected. That was unitary. It didn't matter which hand and which hemisphere. They knew. So, that so beautifully fits the Aristotelian Thomistic view of the rational soul that it takes my breath away. What it's saying is that the perceptual disconnection is there because the sensitive soul, which is the material powers of the brain, is in fact split. Or the sense of powers of the soul are split, so perception is split. Intellected will, which are immaterial powers of the soul, cannot be split. And indeed, they are not split with split brain surgery.

### Michael Egnor:

It's beautiful work. It's fascinating work. To me, it hues perfectly to the Aristotelian Thomistic model of the mind/brain relationship. Cartesianism doesn't explain very well the perceptual split, and idealism doesn't explain it well either. But Thomism nails it. The other thing that I think is absolutely fascinating, and this is something that has not been in my view questioned or investigated as it should just by the medical profession, let alone the basic scientists, is an observation by Wilder Penfield, who is the pioneer in seizure surgery back in the mid-20th century. Penfield noted that there are no intellectual seizures. That is, that when people have seizures, the seizure is kind of a random Stochastic activation of the brain.

### Michael Egnor:

Electrical impulses get going, and it can happen anywhere to anything. Meaning, it can make your arm jerk. It could make you fall down and go unconscious. It could make you see flashes of light. It could make you have emotional experiences. It could make you have memories and smells. Practically anything can be a part of the seizure, except people never have intellectual content. That is, people never think abstractly during a seizure. That's remarkable. That is, that no one ever does calculus as a part of a seizure, or even simple arithmetic. No one ever adds one plus one repeatedly as a seizure. No one ever contemplates justice or mercy as a seizure. Practically anything else you can think of has-

# PART 2 OF 4 ENDS [00:46:04]

# Michael Egnor:

As a seizure. But, practically, anything else you can think of has been described as the ictus of a seizure. And Penfield said, "Why not?" I mean, if most of the brain is devoted to abstract thought, why wouldn't an occasional seizure, fire off an occasional abstract thought, and it never does. And that's exactly what Aristotle would've said.

### Michael Egnor:

I said, yeah, because abstract thought is not material. Doesn't come from the brain. The brain conditions our ability to think abstractly. If you drink a lot of alcohol, and you have ETOH floating around your neuron, you're not going to think abstractly as well as if you don't. But the actual cause of the abstract thought is not the brain, it doesn't come from the brain.

#### Michael Egnor:

But then, again, there are thoughts that are caused by the brain, but they're not abstract. They're emotions, they're perceptions, they're movements. So this dichotomy between perception and cognition is very real in neuroscience. And the only metaphysical framework that also has that dichotomy is the Aristotelian Thomas understanding of the soul. So that's why I'm a Thomist.

### Joshua Farris:

Yeah, that's interesting. Yeah. I guess, I'm hung up on the Aristotelian framework is as being the only way to make sense of, or explain that sort of data. I mean, when you read somebody like Richard Swinburn, and the evolution of the soul, he gives all sorts of thought experiments about how desires, and since perceptions are somehow functionally integrated processes that are dependent upon cognition and neurology. And so he recognizes that. So in that way, he may be affirming something like in Aristotelian view of the body. But is it someone who affirms a kind of, let's say, hypothetically

emergentism is a phenomenon that is sort of set up by God, as this sort of law-like relationship, where there is this lawful occurrence that just occurs when these complex set of conditions are met. Would that not provide any sort of explanatory power similar to the Aristotelian conception?

### Michael Egnor:

Sure. I say this humorously, but I actually believe it. First of all, I think idealism is best understood. As Augustine said, that creation is a thought in the mind of God. That is, we and the universe, we inhabit, are thoughts in God's mind. And they're quite real, because they're thoughts in God's mind, that's not to diminish them. But that's what we are. And that's an idealistic understanding about a physics. But I would say, tongue in cheek, that God is a Thomist, that is that the structure in the divine mind hues rather closely to the Thomistic view. So you can say that I'm a Thomistic idealist. To me, that makes the most sense. But because of neuroscience, as well as some other things in science, for example, the collapse of the quantum wave form. The notion that things exist in an array of potential states until they are observed.

# Michael Egnor:

And then they collapse into an actual state is straight out of Aristotle, who described potency and act. And Heisenberg noted that Heisenberg said, if you wanted to understand quantum mechanics in 2300 years ago, just read Aristotle. What seems strange to us is not strange at all from a hylomorphic perspective at the quantum level, the transition from potency to act is collapsed in the quantum wave form. And, actually, St. Thomas said something that blew me away, blew me away in diatoma, when he was discussing the active intellect that is in the Aristotelian psychology. The intellect has an active and a passive power. And the active power is the power that extracts the intelligible form from something. And it basically takes you from a particular thing in your environment to a conceptual understanding of what that thing is all about. So the active intellect metaphorically reaches out and grasps the intelligible form out of something.

### Michael Egnor:

And the passive intellect receives that form and allows you to understand it. And what St. Thomas said was that in order for the active intellect to grasp the form of a substance, it must reduce the substance from potency to act. It can't grasp the form until the substance is inact, because if it's a potency, it doesn't exist, which is exactly the mental dependence of quantum collapse that we see in quantum mechanics. That is, the mind has to collapse the wave form in order to grasp it. And that's what St. Thomas said 1000 years ago. So it just gave me chills. It gave me chills. So to the Aristotelian understanding of the mind, and frankly of a lot of science, is so perfect. It's elegant, as I said, I think we are ideas in God's mind, but God's a Thomist.

#### Michael Egnor:

And my problem with the Cartesian view is, well, first giving full respect to the idea that there is an eye that's missing in Thomism, that it certainly is missing in materialism, but it's missing in Thomism. That the Cartesian view does show respect to, which I think is very good. My problem with the Cartesian view is that Cartesian metaphysics is so wrong in so many ways that I find I can't accept the mind body metaphysical aspect of such an inadequate metaphysics in so many other ways. For example, what is matter? If one comes from a Cartesian perspective, how does one explain? I mean, what does matter?

#### Joshua Farris:

Yeah, well, obviously, there's the traditional Descartes sort of line, or at least the interpretation of Descartes. And there's the Neo Cartesians who don't always put their full commitment behind that sort of definition.

# Michael Egnor:

The definition would be that, which is extended in space. Is that the-

#### Joshua Farris:

Yeah, so sort of quantitative measured extension that's what matter is, but again, yeah. I mean, a Cartesian of today, a contemporary Cartesian isn't committed to that necessarily. I don't think it follows from the commitment that one makes about the soul or personal identity. I am wondering if something like an Aristotelian conception of matter, or an idealist slant of a sort of Aristotelian conception of matter can be compatible with a sort of Cartesian view of the soul. I mean, most Cartesians, today, are actually affirming. They're not coming with a sort of full-blown metaphysical picture that they have parsed out with respect to matter. They're not coming at it from, with the freight of the Aristotelian on logical categories, but they are gesturing maybe in that direction, which-

# Michael Egnor:

Well, the problem is that in the Aristotelian view of matter, of course, in the most fundamental way matter is potency. But matter in a substance, I think, Aristotle would say, is the principle of individuation. And in Cartesianism, at least, for a human being, the principle of individuation is the soul. So it's completely different. So I don't see how you can blend them. I mean, the Aristotelian understanding of matter is that it individuates, and his understanding of form is that it doesn't individuate. It's the principle of intelligibility. It's not the principle of individuation. So, in a sense, the Arista telling view of the human person would have just the opposite metaphysical commitment to that of Descartes. It's the matter of the person, individuates the person, the soul is the intelligible part. Descartes would say, well, the matter is the measurable. So rather the intelligible part, and the soul, is what individuals. It's kind of the opposite.

#### Joshua Farris:

Yes. Yeah, that's right. Yeah. So, I think, if you come at identity from an Aristotelian perspective, if matter is what individuates, then I don't think we're ever going to get at that more fundamental feature that makes me, me.

M	icl	nael	l Egn	or:

Right.

# Joshua Farris:

And I think that's the harder problem. I think, there's probably chronological ways we could set up to make sense of how matter works, and how it affects the mind, how it affects perception. We can make sense of that if we have a sort of functionally integrated soul, body interaction, but I don't think the Aristotelian can ever make sense of the individuality of personhood.

# Michael Egnor:

Right. And I think the Aristotelian or Thomist would try to skate over that, by saying that the person is the composite. So the individuation of the person is because of his matter, but the person himself is the composite. Therefore, he is individuated because he is a composite of matter. However, I think I do agree that's kind of skating. I don't come away emotionally satisfied with that, because there is, let's face it, there's a meta physically simple me. And I was going to say that I know, well, but Wittgenstein would say, no, I don't know me well at all, that me is what knows not what is known. And there is something in me that knows, that is me. It's not in me. And I do that. The Cartesian view can handle that. And I don't think the Thomistic view handles it particularly well. And I still keep going to the idea. Well, if we were thoughts in God's mind and God was a Thomist, maybe that would handle it well.

Joshua Farris:

Maybe. Yeah. Yeah.

# Michael Egnor:

I wanted to talk just a little bit about philosophy of science, and its relation to theology. First question is a belief in God compatible with the practice of science.

Joshua Farris:

Yes, absolutely.

# Michael Egnor:

Seems like a silly question, but it's actually a pretty hot question nowadays, which seems to be kind of crazy, but okay. So why would anyone claim that you couldn't believe in God and be a good scientist? So why do people believe that there's a conflict between science and religion?

#### Joshua Farris:

Yeah, well, I think, there's some converging influences in the history of science that we could look at. You might know better in this than me, but there is certainly a sort of prevailing sort of common idea that science proceeds and has proceeded without of God in the picture and explanatory picture of natural events that we observe. And we try to make sense of, that God really has supplied no relevant answers to. Certainly, when we're hearkening back to some of our discussions about the nature of consciousness and personal identity, there seems to be a common sort of idea that scientists affirm something like the elimination of say the free, willing self. I was reading a couple of weeks ago, this book by a set of popular scientists that are out there called Ideas That We Must Dispel Ourselves Of. I think that's the title of the book. Have you heard of that book before?

### Michael Egnor:

No, I haven't, but it sounds like the kind of book they would write.

#### Joshua Farris:

Yeah, so there's this common idea that when we proceed, utilizing the method of methodological naturalism as methodological naturalism is often taken to be just science. It just is science, and science proceeds in a way that has no need for ghosts angels, or eerie spirits, or God. We have no need for that. In fact, we have no need for consciousness itself. So, you have people like the psychologist, Bruce Hood, who are operating out of this sort of framework, who make these sort of wild claims. Well, we're forced

to reexamine the factors that are truly behind our thoughts and behavior and the way they interact, balance, override, and cancel out. And so he goes on to suggest that we no longer need any sort of idea of this sort of free, willing self. Instead, we need to reexamine what's behind our thoughts and behavior, because science doesn't give us a free, willing self or a conscious self. There is no more need for that.

# Michael Egnor:

The odd thing, if you think about it, why would anyone try to convince other people that there is no free will? Because if there is no free will, then other people aren't free to choose to agree or disagree. The whole process of discourse presupposes the option of choosing. And if everything's guided simply by physical interactions, then we're all just reflex preparations anyway. And why bother? It just amazes me.

Joshua Farris:

What's the point of persuading us otherwise with reasons that we can adjudicate?

Michael Egnor:

How can you be persuaded, if you don't have free will anyway?

Joshua Farris:

That's right. Why would you try to persuade me of that?

# Michael Egnor:

The other thing is that the philosophers, and scientists, who argue that the notion of God is superfluous in spirits and things like that, is superfluous to science. Are the same people who propose that an uncountable number of universes exist within the multiverse. And, of course, they evoke that to try to defend a naturalistic understanding of the fine-tuning of the universe, and so on. So the existence of uncountable other universes. That's not too strange, but the idea that there might be a God is crazy. And just off the plate.

Joshua Farris:

Yes. Yeah. It's baffling.

Michael Egnor:

Yeah. Yeah.

Joshua Farris:

Yeah.

### Michael Egnor:

Unless, one just presumes that they just don't want to face up to God. If you want to get rid of God, that's the way to do it. You just stipulate that he doesn't exist and that you can't do science without him. And then you make up all sorts of crazy stuff, and call it science.

Joshua Farris:

Yeah. There do seem to be some moral motivations behind the scene. I mean, in that same book, this ecologist, have you heard Jerry Coyne? Is that his name? Jerry Coyne, at the University of-

Michael Egnor:

Jerry Coyne. Yeah.

Joshua Farris:

Coyne. At the University of Chicago.

Michael Egnor:

Right.

Joshua Farris:

I mean, he makes claims like this, the same book, This Idea Must Die. He states the illusion of agency is so powerful that even strong incompatible like myself will always act as if we had choices. Even though we know we have no choice in the matter.

### Michael Egnor:

The funny thing is that the exact opposite is true. They do have choices, and they pretend that they don't. I've interacted with Coyne quite a bit. And we go back and forth on blog debates. And he's quite hilarious. He put up a post on his blog a couple of years ago, showing, I think, it was a dented fender on his car. Somebody in a faculty parking lot had bumped into his car and then drove off. And how, in fact, somebody did that to his car and didn't own up to it. And I pointed back and said, well, if the guy had no free will, how can you blame him?

Joshua Farris:

Right.

Michael Egnor:

I mean, if he's a meat robot, there's no blame. There's no accountability, no more than that if the wind knocks over a tree bridge, it just happened.

Joshua Farris:

That's right. Yeah. Why would you be so upset about it?

# Michael Egnor:

Right, right, right. There's no such thing as culpability. I mean, stuff happens. The other problem with that viewpoint, and the denial of free will is an extraordinarily dangerous idea. I actually think it's among the most dangerous ideas, put forth by a materialist, who put forth a lot of dangerous ideas. And the reason is that the denial of free will is the core of totalitarianism. That is totalitarianism entails reducing human beings to livestock, and hurting them and culling them as you see fit. Hitler, didn't gas, 6 million Jews, because they were individually culpable of doing anything, right. There were no trials. They weren't convicted of any crimes. They were basically treated just like livestock that you wanted to get rid of.

# Michael Egnor:

And if there is no free will, it's true that there is no guilt, but there's also no innocence. That is, if there's no free will, then the purpose of law enforcement, the purpose of the criminal justice system would then be just to stop crime. And if you want to stop crime, you can do it very efficiently by just imprisoning people who might commit crimes. Why wait to prove their guilt? It's much more efficient.

imprisoning people who might commit crimes. Why wait to prove their guilt? It's much more efficient.
Joshua Farris: There was a film about that, right?
Michael Egnor: Yeah. Yeah, sure.
Joshua Farris: What was that film?
Michael Egnor: Pre-crimes and Right, right. It was Tom Cruise.
Joshua Farris: Yeah. Tom Cruise Minority Report.
Michael Egnor: Exactly.
Joshua Farris: Yes. Yeah. That's it.
Michael Egnor: And if there is no free will, then everything leads to that. Why waste your time waiting until somebody commits a crime? I mean, if no one is guilty, then no one is innocent.
Joshua Farris: Why not put them away, or put them out of misery early on. Right?
Michael Egnor: Precisely.
Joshua Farris: So that we don't have to deal with it. Yes, that's right.
Michael Egnor:

Nobody puts a coyote raiding their chicken coop on trial. They just shoot it. And because coyote don't have free will, coyotes just do what they do. So yeah. So it's deadly stuff. It's a deadly idea. And we don't realize how bad it is. It's not just an academic question.

Joshua Farris:

Yes.

Michael Egnor:

Here's a question. Can you demonstrate God's existence scientifically?

#### Joshua Farris:

Yeah. So, I guess, it really goes back to a more fundamental question about what we mean by science, and what science is. So there's different answers, obviously, to that question. And there's obviously different positions in church history on this about, can we use nature itself, and can we derive certain information from nature itself to demonstrate the existence of God? And there's excellent work in natural theology being done today by philosophers, who have made pretty valiant attempts to develop arguments that move in the direction of demonstrating God's existence. And utilizing nature as a sort of independent source that we can derive our premises from and develop logically airtight arguments that demonstrate God's existence, and I'm sympathetic to those proposals. And I think, I guess, the way that I approach natural theology is more of along the lines of... I think, it's better to approach it as this kind of logic of discovery from a vantage point that has already has a pre-commitment to theism.

#### Joshua Farris:

And in my case, particularly, Christian theism that has a particular lens on the world that does a better job of explaining certain things in the world. Ultimately, theism provides better causal explanation for, say, consciousness, and the implications following from consciousness, as we were just discussing, seems to me that the various properties and powers that follow from consciousness lend themselves to all sorts of theistic implications. And this is why many scientists who have developed certain habits want to get away from those consequences. And so they have to effectively eliminate the conscious self, the free willing self in order to avoid those implications to theism. Yeah. So I think there's a robust tradition of looking out into the world and reflecting on God's existence in nature, the famous passages, Psalm 19, the heavens declare the glory of God, the sky's proclaim the work of his hands. And I think there's something important about having a sort of attitudinal stance, or an approach to nature that comes with this sort of particular lens in surmising the data from nature and seeing what it teaches.

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#### Joshua Farris:

... the data from nature and seeing what it teaches us from a perspective of wisdom, our location as human beings who are created in the image of God and recognizing that this is his handiwork, and approaching it in that way. So that's, I guess, the manner in which I'm inclined to approach natural theology.

### Michael Egnor:

I've argued in Mind Matters that I think the definition of science that I like, and I think works the best, comes really from the classical philosophers. And that is that science is the systematic study of effects

according to their causes. So it kind of has three characteristics. It's systematic. So it's not just hunches and occasionally doing stuff, but actually sit down and studying it. It's a study of effects, of things in nature as they are, and the study is focused on the causes of those effects.

#### Michael Egnor:

And natural science, and that's scientia, science understood most broadly, which would include theology, which would include ethics and music and all sorts of things. And natural science would be the systematic study of natural effects according to their causes. And I think that works, especially if one only modifies effects by natural, but not causes by natural, that is there are effects in nature that have extra-natural causes. Obviously the Big Bang, the Big Bang was the beginning of nature. So whatever caused the Big Bang was outside of nature. I think that singularities at the core of black holes are extranatural things. They aren't defined in physics, they're outside of physics.

### Joshua Farris:

But they would still be within the domain of science, according to your definition?

## Michael Egnor:

Yes, yes. Well, yeah, of course, yeah. Because singularities are solutions to the field equations of relativity that blow up, that basically go to infinity because something is divided by zero. That is, if you actually do the equations, the number becomes infinitely large. And that's the singularity. And mathematically that's not defined. That is, division by zero is not considered a defined function in mathematics.

#### Michael Egnor:

And so singularities within physics aren't defined. Their effects are defined. That is, they give rise to black holes and probably a singularity gave rise to the Big Bang, so we can know a singularity by its effects, but we can't know what it is, because it's not defined. If you look at the classical ways of knowing God, there are three ways that God can be known. We can't know him in himself as he actually is, at least not in this life, but we can know him by what he is not. We can know him by his effects in the world. And we can know him by analogy, which is St. Thomas.

#### Joshua Farris:

That's very Thomistic of you.

### Michael Egnor:

Oh yeah, yeah. Yes. That's a classic St. Thomas. But he got a lot from Boethius. I mean, he got a lot from a lot of people, but yes, yes. And the interesting thing is that, if you look at the way science handles singularities, it's the same three, it knows singularities by what they are not. They don't have dimensions, they don't have temperature or color or things like that. They're known by their effects in the world. They give rise to the Big Bang. They're at the core of black holes. And we can know them by analogy. Singularities are often depicted as depressions, like a stretched rubber membrane. If this rubber membrane is space time, a singularity is an infinitely deep depression in that membrane.

### Michael Egnor:

So science deals with singularities just the same way as St. Thomas said we had to deal with God. Now it's not to say that singularity is a God. What we're saying is that science can deal with things outside of nature. And does all the time. In fact, numbers are outside of nature. The number four is not a natural thing. There are groups of four things in nature, the four trees in my front yard, blah, blah, blah, four tires on a car. But the number four is not a thing in nature. It has no location. It has no weight. It's not a natural thing, but it's invoked in science constantly. So there's all kinds of things in science that are not themselves natural causes. So yeah, the supernatural can cause things in nature. It does all the time, if we define things that are undefined in the natural world as supernatural.

#### Joshua Farris:

Yeah. Okay. That's a very classical way of approaching... Yeah. Yeah, yeah. That's good. Okay. No, I appreciate that. So that wouldn't fit very well within the confines of what most you're considering methodological naturalism.

# Michael Egnor:

Yeah. Methodological naturalism is bad science, it's ideological science. It's saying that no matter what the cause of something is, we're going to exclude anything that's not a natural cause, which is junk science. I mean, that's basically saying we don't care what the real cause is. We're going to impose the structure on it, knowing that that could very well lead to causes that are real. As I said, the definition of science is the systematic study of natural effects according to causes, any cause, whether it's natural or supernatural, I think is the best definition of science. If the supernatural cause is the cause then you go for it.

#### Joshua Farris:

Yeah. So on your definition, we're basically studying causes and effects and some are natural and some are supernatural.

Michael Egnor:

Right. Right.

Joshua Farris:

The study of revelation or the theological study of revelation on that definition would be considered science as well.

Michael Egnor:

And the classical philosophers did consider that. I mean, theology was the queen of the sciences.

Joshua Farris:

Right.

# Michael Egnor:

And the only thing that distinguishes science, as we know it today, is just that it's the study of natural effects. We restrict our study to effects in nature. And that's what natural science is. But we don't restrict our study of causes of those natural effects to nature. The causes can be anything, wherever the evidence leads.

#### Joshua Farris:

Right, right. So as a practicing scientist, do you think that there is still today, at least in the academic practice of science, is there any place or at least any robust place for theology to enter into the scientific discussions?

# Michael Egnor:

Theology is in all scientific discussions, everything. It's everywhere. Either acknowledged or denied, meaning that... A very good example of this. I am of the very firmly held opinion that all proofs of God's existence, all of them, are scientific proofs. That the notion that science can't prove God, and many, many theists say, "Well, science can't really prove God, but..." All genuine proofs of the existence of God, proof meaning inferential lines of reasoning, are scientific proofs. The reason is that in St. Thomas's view, and I think he's right on this, existence is absolutely distinct from essence. So the fact that something exists, that what is different from that, basically, that something exists is a different thing than what that something is. And therefore you can't demonstrate the existence of anything, the thatness of anything, by just describing the oneness of it, which means, for example, that the ontological proof is not valid.

# Michael Egnor:

And St. Thomas famously rejected that proof because there's no existence in it. There's no evidence. It's a formal logical proof, and formal logical proofs cannot prove anything outside of formal logical things. God is not a formal logical thing, he's an existing thing. So, you have to have evidence to prove the existence of anything. So to prove existence at the end you have to start with the existence of something, and that's inductive proof. When you start with evidence and then use some formal system to arrive at inference to best explanation, that's an inductive line of reasoning. And science is just inductive reasoning applied to nature. So the proofs of God's existence are also inductive proofs and they have the same structure as scientific proofs.

### Michael Egnor:

A very good example is the prime mover argument. The prime mover argument basically is that change exists in nature and that it is not possible to have an infinite regress of instrumental causes in a system of change without having at the foundation of this instrumental series of causes, an un-moved mover, a prime mover that is not itself moved. That's a scientific argument. Because you start with the empirical observation of change in nature, and you reason through a formal way to what must be true of the cause of that change. That's the same thing as is done in evolutionary biology, looking at nature, reasoning back to what causes the change in species. Same thing that's done in physics, what causes this radioactive isotope to emit that electron. So I believe all valid proofs of God's existence are scientific theories.

# Joshua Farris:

Yeah. That makes sense from the way you're describing science. Yeah.

### Michael Egnor:

So when you say, can science be done without theology? At least if one is talking about natural theology, science and natural theology are completely intertwined.

### Joshua Farris:

Yeah. So it seems like an obvious question, I guess, as a theologian, and this is something that I... And we don't have time, but someday I'd love to chat more about and to see how we can develop fruitful research programs to integrate the two a bit more consciously and explicitly in print. So the question seems obvious, but I just don't see a lot of robust theological and scientific engagement taking place right now and how it is that theology can actually offer any sort of voice in the contemporary scientific conversations or how it is that the scientific practitioner can consciously bring God into the mix and supply a sort of logic that gives us a fruitful way of discerning where God is acting in the present world right now. It's hard for me to see that actually taking place where theology has largely been marginalized in the higher ed systems, at least in the US. It's just almost irrelevant these days and it's certainly irrelevant in scientific discussions.

### Michael Egnor:

Well, it's irrelevant, but it even goes further. If you are a practicing scientist and you bring theology into your science, you're unemployed, that's it. I have a friend who's a leading biologist who is a devout Christian. And I talked to him one time about intelligent design and all of that, and he said he would give anything to be involved in it because he believes it. But he said, "But if I ever said a word publicly, I would never get another grant."

Joshua Farris:

Right.

# Michael Egnor:

And he's exactly right. He would be totally canceled. So in that sense, theology is already in sciences in a negative sense, that if you make any appeal to God, you're done. You're done.

Joshua Farris:

That's an interesting way to put it.

### Michael Egnor:

So there's no separating theology and science. I mean, if you look at, for example, even Aquinas' five ways. The first way by change, the second way by causation, the third by contingent existence, the fourth by degrees of perfection and the fifth by regularity and nature. All of them, all of them, are scientific statements. Every single one. Change. How do you account for change? There has to be an unmoved mover. That's a scientific line of reasoning. Change is observed in the world. When you analyze it very carefully, you realize that there has to be something that does not change that begins it.

# Michael Egnor:

Cause. Causes exist. There has to be an un-caused cause that begins the chain of causes. There has to be a necessary existence to account for things that exist. There has to be an ultimately perfect thing to account for degrees of perfection. And there has to be an intelligent designer to account for regularity in nature. That's all scientific. Every single one of those things is a perfectly reasonable, valid inference in the natural sciences. And every single one of them is explicitly excluded in the way science is practiced nowadays. And if you bring them up, you lose your job.

Joshua Farris:

### Right.

# Michael Egnor:

And punishing people for bringing them up in a sense is theology in science, only it's negative theology. It's that if you bring it up, if you bring theology up in science, you're fired. But that is theology in science. It's just used as a cudgel instead of as an aid.

#### Joshua Farris:

Right. Yeah. And that's why... Well, it is difficult right now to articulate, in our contemporary situation, how it is that theology can be the queen of the sciences, if it's not functioning in any sort of robust way in how science is conducted and how the conclusions are interpreted.

# Michael Egnor:

Well, it depends on how you define theology. If you define theology as including the philosophical and methodological exclusion of inference to God from scientific work, which I think that is a theological statement, theology can be negative. If you define theology as including that, then all science nowadays is theological in a sense that you better not talk about God.

#### Joshua Farris:

Yeah.

# Michael Egnor:

Yeah. So there's no escaping it, just as there's no escaping God. There's no escaping inference to God. You can choose to refer to God in your work, or you can choose to refuse to refer to God and to punish people who do, but it's all theology.

### Joshua Farris:

Yeah. That's interesting. I hadn't thought about that. That's a very sort of Thomistic way of thinking. There are classical reformed ways of thinking about science and theology that's different, I mean, that depart from Thomas. So you have Hermann Dewyard, the systematic theologian, who would say that theology is one science among other sciences and philosophy serves the foundational role and philosophy is foundational to all the sciences. So there's some sort of demarcating role that's given to philosophy as a way of demarcating the different disciplines and how we parse out the different disciplines and the information that it gives.

# Michael Egnor:

Here's a good, I think, retort to that, the notion that philosophy is the foundation of sciences rather than theology. And that is that without theology, there is no real ground for believing in the existence of anything outside of your mind, in the validity of your concepts and the validity of your perceptions. Solecism makes just as much sense from a purely philosophical perspective as does the ordinary way of looking at the world. How do you know that I really exist, that what you're listening to is coming from a person like you? At least in theology, the inference is that God is not evil, that God wouldn't deceive you like that. In philosophy there is no... How do you know? So I don't see how philosophy can be the ground, because if philosophy is the ground, then you can't even know that the world exists out there.

How can you study the natural world if philosophy offers no actual proof that the natural world even exists?

Joshua Farris:

Right. Yeah. I guess you could take philosophy as being rooted in a reliabilist understanding, a sort of common sense. And so that's the starting point.

Michael Egnor:

Right, right. You have to believe that reason is reliable. And in my view that cannot be grounded in itself. It has to be grounded elsewhere. And obviously the only other elsewhere on tap would be God. So, theology, I think, really is the queen of the sciences, and frankly, all scientists practice it. I mean, every scientist is a theologian of sorts.

Joshua Farris:

At least implicitly, despite what they might say, right?

Michael Egnor:

Right, right. Implicitly, obviously. Very few of them are the least bit aware of it. Because scientists are, almost without exception, the worst philosophers on earth, terrible philosophers. And they do things all the time that they don't understand. Yes, I'm very much a believer, and I guess this is just my Thomism coming through, that theology is the queen of the sciences. It's the basis for all knowledge. Even when you deny God's existence, you're making theological assumptions.

Joshua Farris:

Right.

Michael Egnor:

But self refutation is basically the modus operandi of these people anyway, so.

Joshua Farris:

Huh. Uh-huh. Right.

Michael Egnor:

So it has been a delight, Joshua. Thank you. And I would love to talk some more. We can do some more podcasts.

Joshua Farris:

I appreciate it.

Michael Egnor:

Thank you. And to our listeners, this is Mike Egnor from Mind Matters News, interviewing Dr. Joshua Farris. Thank you for listening. Good day.

Announcer:

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