

# The Rational Soul: Rethinking Materialism with Neurosurgeon Dr. Michael Egnor

<https://mindmatters.ai/podcast/ep307>

Pat Flynn:

Okay, everybody, welcome back to the podcast. I'm joined once again by Dr. Michael Egnor. We've been having just a fascinating conversation, largely focused on neuroscience and the soul. Of course, much of what we are discussing can be found in his recent contribution to *Minding the Brain*. I want to encourage everybody to grab a copy of that volume, it's truly magnificent.

And one thing I like about that volume, Mike, is that while there's a general challenge presented to the materialist worldview, the different contributors of the volume hold different perspectives ultimately. You have idealists there, you have dualists of various stripes, and in fact, you would fall into the latter camp as somebody who, very much like me endorses, Thomistic dualism. So I thought it might be fun just to finish our conversation with a little chat about that. What is Thomistic dualism? I mean, right off the bat, even just calling the Thomistic Aristotelian position dualists a little controversial. I'm okay with it, but sometimes it gets conflated for substance dualism, which it is not. So maybe we should just start off by just... Yeah, ground zero, let's not assume that anybody is familiar with this position. I'd like to hear how you explain it to people, Mike, and really I would love to hear how you ultimately came to endorse this position yourself in your own sort of philosophical investigations.

Michael Egnor:

Well, we've been talking here about the soul of sorts. And you can ask that, "So what is the soul?" I mean, we use the term as a way to kind of organize our thought on the mind and so on. And the idea of soul that I think makes the most sense, particularly with respect to neuroscience, is Aristotle's idea of the soul, which was developed in this most complete form, I think, by Thomas Aquinas. And Aristotle, just to backtrack, slightly, asked a fundamental question, and Aristotelian metaphysics is such a fascinating thing, it's such a beautiful thing, and it's so relevant to modern science.

But Aristotle asked, "What things exist?" That is, how can we describe what he calls substances in the world? He said, "To know a substance is to know two things about it." "The first thing," he said, "was that there's a principle of intelligibility," meaning that you know something about it. That is if there's a substance out there on like a tree or a rock or something, you can say things about it. It's 30 feet high, it weighs 10 pounds, whatever, there are things that you can know about it.

The second thing he said is that you can distinguish one substance from another substance. He called that a principle of individuation. So he said that if you know the principle of intelligibility and the principle of individuation about something, then you know it, then you know that thing and that thing is a substance of something that exists. So he said that living things have this principle... Oh, and he said that principle of intelligibility, he called form and principle of individuation, he called matter. So everything is this composite of form and matter, the composite of something that's intelligible and something that's individuated.

And then he said, "Well, what about living things?" The form and matter is fine with a rock or a statue or something like that, but what about something that was living? He said, "Well, the form of a living thing is just its soul." And he said that, "If you imagine when a living thing dies you can..." Let's say you look at a human being a second before he's dead, and then a second after he's dead and say it's a sudden death. A second before he's dead, the human being has certain attributes, certain intelligible things that differs from what the human being has the second after he's dead. And Aristotle said, "That's the soul."

That is, the soul is the difference between a living body and a dead body. And so the soul is what makes a living thing a living thing.

And he noted, and again, Thomas Aquinas basically follows Aristotle's framework on this. He kind of baptized Aristotle. He put Aristotle's ideas in a Christian framework. What Aristotle said is that if you look at living things, there seem to be three basic kinds of souls. First of all, everything that's alive has a soul. So a plant has a soul, a human being as a soul, a dog has a soul. In plants, he called that a vegetable soul or a vegetative soul. And he meant that it's a soul that carries on the basic processes of life, growth, nutrition, reproduction, things like that. So the animals have sensitive souls, which means that they have all the basic stuff, just like plants do, but on top of that, they have movement, they can run around and they have sensations. They can see and hear and smell and so on. And human beings have all the soul stuff that plants and animals have, but on top of that, we have intellect and will, that is that we have the capacity to think about things that don't have material instantiation.

For example, my dog thinks about food a lot. She loves to have her dinner, but she does not think about nutrition. So she'll think about the bowl of food. She never thinks about how many calories are in it. Only human beings think abstractly. And Aristotle described a human being as a rational animal. We are obviously animals in some sense, we have bodies, and there's an animal part to us, but we're rational. We have the ability to think abstractly, to think of mathematics and logic and philosophy and God, things like that. And so human beings differ from animals and from plants in that our souls are rational and that we have free will. And free will differs from...

There are two kinds of appetites in the Aristotelian way of looking at things. There's sensitive appetites and rational appetites. Sensitive appetites are, "Yeah, hey, I'm hungry." Our sensitive appetite is a desire for sex, or it's a desire for warmth or a desire for all sorts of physical things." Rational appetite is a desire for truth, or actually it's a desire for goodness, in the Thomistic way. You're looking for things that are abstractly good, not good, just in the sense they feel good, but that are good like honesty and truth and things like that. So the human soul is the rational form of a human being.

So then the question is, how does that fit into what we know about neuroscience, about the things that we've been talking about? Aristotle's viewpoint and St. Thomas's as well is that the intellect and will, the rational parts of a human being are not from the body, they're not physical, they're spiritual. Aristotle didn't use the word spiritual, but they kind of meant that. And St. Thomas explicitly used it that the intellect and will are immaterial spiritual aspects of a human soul, a human being.

And what hooked me on Thomistic metaphysics was when I learned that I then looked back at the neuroscience and said, "That makes perfect sense." That is that, Wilder Penfield, that he found that there are certain things that come out of the brain in seizure, movement, perception, memory, emotions. But there are certain parts of the mind that never come out of the brain, like abstract thought. Well, the abstract thought is the intellect, and that's not from the brain, it's not material. So all these different experiments, they seem kind of different and out there until you look at it from a perspective of Thomistic metaphysics. And then it's like St. Thomas had this nail, or Aristotle had this nail 2,000 years ago,

Pat Flynn:

And it just picks up all that empirical confirmation, which is fascinating. And for people who miss part one, be sure to listen to that because we went through that in significant detail.

Now, Mike, like you, I guess I was, well, not like you because I was the opposite in the sense that I was interested in metaphysics. So you brought up the problem with the one and the many. Hey, there are things that seem similar yet different so we need principles to account for them, and we need principles

to also account for how things persist through change and time. So whatever the principle of similarity is, call it this, form, whatever the principle of difference is, call it that.

But the point being is that it just seemed like a really fruitful ontology for solving those perennial philosophical issues. And then only later once I started peeking into philosophy of mind, did I see that it was extremely useful there. Because it wasn't really like Aristotle or even Thomas Aquinas who were dealing with the hard problem of consciousness, that really wasn't on their mind. But now as it happens, their way of looking at things, their metaphysical system is actually extremely useful and fruitful for dealing with these kind of contemporary mind-body problems and stuff like that. So yeah, I just wanted to just throw that out there and get your comments on it.

Michael Egnor:

No, I totally agree. And there's something that Ed Feser and I recommend to listeners who want to learn a lot about this. Ed Feser F-E-S-E-R is his last name, Edward is his first name, is a philosopher from California who's written a number of books on Thomas Aquinas, on Philosophy of Mind, and now has a new book out on Philosophy of Mind. And he's a wonderful expositor of this. He's a very good philosopher. When I first tried to read Aquinas, it must have been about 20 years ago, I couldn't make heads or tails of it. I mean, if you've ever actually looked at the Summa or something, unless you've had an introduction into metaphysics, it's Greek, literally.

Pat Flynn:

So is Aristotle's Physics, good luck with that.

Michael Egnor:

But Feser opened that up for me because he explained what it all meant. And then you can go back and see what St. Thomas is talking about. So if you really want to get this stuff, Ed Feser's work is indispensable. So what Feser pointed out is that, just from the scientific standpoint, if you look at Aristotle's four causes, it's a wonderful paradigm for science, for neuroscience in that particular. Aristotle posited that if you want to understand the cause for something being the way it is, like let's say you have an object sitting in front of you and you say, "What caused the object to be this object? How did it get here," in a broad way. And Aristotle said, "Well, there are four causes that you need to understand to really thoroughly understand something."

The first thing is its material cause, that is what it's actually made of, made of marble or made of wires or whatever. The second cause is its formal cause, which means what is its structure, what's sort of the intelligible way it's put together. The third cause is its efficient cause or moving cause, I think he called it, which is how did it get to be this way? How was it constructed? With marble, the sculptor went in there and worked with a chisel and made it the way it is. And the fourth cause is its final cause. And the final cause is its purpose. For example, a statue, what's the purpose of the statue? Is the statue to be decorative? Was the purpose just to make an object that the sculptor could sell and get money for?

And Aristotle said that the causes work in groups, like material and formal causes work together and efficient and final causes work together. And he said the final cause is the most important cause, that is the purpose for things. It tells you what they are. And we use that all the time in biology, that is that, try describing the heart without talking about its purpose to pump the blood. You couldn't make heads or tails of the heart unless you understood its purpose first. If you understand the purpose, then it all makes sense.

So if you use Aristotle's four causes in neuroscience, it unifies neuroscience in a beautiful way. Let's say that I decide that I'm going to write a sentence using my right hand. Neuroscience can study that, the

material cause of my writing that sentence is the protoplasm in my brain and my nerves and my muscles and so on, all of that, all the actual matter and you can study that doing histology. As a scientist, you can study the matter. That's fine. People do that throughout their entire career.

The efficient cause is the physiology. It's how the action potentials move down the axons. It's how the neurotransmitters work. It's all that complex stuff. The formal cause is the anatomy, how this is all put together in a comprehensive, understandable pattern. And the final cause is what I plan to write, that is the sentence I'm writing, like the purpose for writing it. I'm writing a letter, I'm filling out a form, I'm signing a check. So you can look at neuroscience in terms of material efficient, formal and final causes and you don't have to do all four. You can be a physiologist who's just interested in the action potential part, the efficient cause part, or you can be an anatomist who's looking at the formal cause, the structure of things. Or you can be a psychologist and look at the purposes involved. So it's a beautiful way of integrating neuroscience.

Pat Flynn:

Yeah, for people who might not be totally familiar with the Aristotelian system or Thomas Aquinas's, which again, the way I think of Aquinas is he's that great synthesizer. Sometimes he's described as the first great medieval philosopher. I sometimes like to think of him as the last great classical philosopher who brought together the best thought of Aristotelianism and Neoplatonism. But it really is common sense philosophy with robust intellectual machinery beneath it to support it. The four causes are all just answering a sort of basic question. What is it, what is it made of? Who or what made it, and what is it for?

The sorts of questions that we would naturally ask to just kind of soak up all the intelligibility that we presume something has to offer to us. And it is very cool to see, you talked about purposes, this sort of resurgence of teleology, even in biology and systems level thinking and stuff like that. So I'd be curious your thoughts again on whether they're optimistic or pessimistic, the future of that sort of thinking when it comes to the sciences in general, do you think we'll see a return towards a more Aristotelian paradigm? Do you think that that will prove itself more fruitful over time and win out in the battle of ideas? So I don't know the science as well, but in philosophy we are seeing a strong Aristotelian resurgence for sure, and in philosophy of science as well. But yeah, more in your area. I'd just be curious your thoughts on all of that.

Michael Egnor:

Yeah, I think we are going to see a resurgence there. I tend to be a peptimist... A pessimist. I also get dyspeptic over it. But yeah, I tend to be a pessimist. And just in the sense that I think humanity is pretty screwed up in a lot of ways. What may at first seem like a glimmer of hope, like new atheism seems to be on its deathbed, which is, "Hey, that's a glimmer of hope. Materialism is on his deathbed. That's a glimmer of hope, but paganism is following, which is not-

Pat Flynn:

Yeah, right, exactly.

Michael Egnor:

But I think that the Aristotelian way of looking at things is so profound and so true, and so obviously true that, I mean, you can't do good science without it. You can either do it implicitly or explicitly. And I think a lot of people are realizing that explicit might be better. So yeah, I think there is an Aristotelian resurgence, and that's a very good thing. I certainly see it.

And I should point out that some of the great modern scientists were Aristotelian. So Werner Heisenberg was a passionate Aristotelian, and he pointed out, which I think is fascinating... There are two really neat Aristotelian links in modern science. One is, Heisenberg wrote rather extensively on this, that when you look at the collapse of the quantum wave form, that is that Schrodinger's equation in quantum mechanics is basically an assembly of possibilities, of potential states. And the measurement of a system reduces these potential states to a single actual state. That's the famous measurement problem in quantum mechanics. And Heisenberg said, "That's just Aristotle's potency in act, that things exist in a potential way until you observe them and then they collapse into an actual way." And that was how Aristotle described change in nature. So there was a famous scientist, I actually forgot what his name was, but he was, this is back like 50 years ago, who said that, if they were giving out Nobel Prizes to dead people, they'd have to give Aristotle a Nobel Prize in science because he figured all this stuff out.

Pat Flynn:

The one thing that I would just want to continue to emphasize for people who are interested in this is that, I sometimes use Thomistic and Aristotelian interchangeably, they're not exactly the same thing, but Aquinas of course, is that sort of development of Aristotelian thought, is again, its usefulness across so many different problems in so many different areas. It's just really cool to see for me how useful it was in Philosophy of Mind once I got there and how empirically confirmed it is.

And again, I'll point people back to the first segment we did where Mike just went through all of these different experiments and findings in neuroscience with epilepsy research and split-brain experiments that really seem to confirm this Thomistic theory, not just over materialism, which of course is kind of the primary target of dividing the brain volume, but even seems to favor Thomism over idealism as well. And like you, Mike, I share many sympathies with an idealist worldview. Certainly I'd go for that any day over materialism, but it does seem like a Thomistic account is able to make better sense of certain empirical findings even more so than idealism. I don't know if you want to speak about that at all, but-

Michael Egnor:

Well, it's a very interesting question. The most profound person I've spoken to about idealism is Bruce Gordon.

Pat Flynn:

Oh yeah. Yeah, a great thinker.

Michael Egnor:

Bruce is just a brilliant guy and a dear friend. And Bruce has actually been converting me over time to becoming an idealist, and he has a lot of good points. And one thing I think that is important is to remember back to Plato, sort of the original archetypal idealist is Plato. And Aristotle was a Platonist, meaning Aristotle was Plato's student and Aristotle refined in his own idiosyncratic way a lot of what Plato did, and I think that did a lot of good things. But the notion that Aristotle and Plato are opposites, like that famous fresco of Plato pointing up and Aristotle pointing down in the Vatican, I think is a misunderstanding. Aristotle was very much a Platonist.

Pat Flynn:

Yeah, as Lloyd Gerson, one of the great scholars will tell you, Aristotle and other Platonists, right.

Michael Egnor:

Right. And so I have a little quip that I use that I think one of the deepest, most profound and beautiful metaphysical insights there is, was something that a number of people have proposed, St. Augustine, particularly a champion of this, is that all of reality, including us, are thoughts in God's mind.

Pat Flynn:

That's where I was going to go. At some level, we all... If you're a theist or idealist, yeah.

Michael Egnor:

That we're thoughts in God's mind. So I kind of joke that idealism is true in the sense that all of reality is a thought in God's mind, but God is a Thomist.

Pat Flynn:

Yeah, there you go. That's a great way to build a friendly bridge between these two perspectives. So that's great. Yeah.

Michael Egnor:

I think of idealism as being the fundamental truth of reality, but the structure of reality is better given by a Thomist.

Pat Flynn:

It's hylomorphic, yeah. Yeah, excellent. Yeah, fascinating. Well, again, I want to point everybody to your contribution in the volume, *Minding the Brain*, if they want to read more on particularly the neuroscience perspective, which it was a great chapter. I learned a ton. I was really excited to have this conversation. I was not disappointed. This has been a ton of fun. But before we go, Mike, please tell us what are you working on next? Do you have any new projects you'd like to tease or announce? What's coming up and how can people keep up with what you're doing? Yeah.

Michael Egnor:

Sure, sure. Well, these ideas have fascinated me so much. I have recently collaborated with my dear friend, Denise O'Leary, who is a journalist, has worked for many, many years with the Discovery Institute. And we have a book coming out probably in about a year from Hachette Worthy that is, the running title, is *The Immortal Mind: A Neurosurgeon's Case for the Soul*. And basically it's these ideas developed in more depth. And the book is pretty much written, it's in the editing process, and I think it'll be fascinating for... For people who really love this stuff, I think it'll be a lot of good insight.

Pat Flynn:

Wow, well that's... Yeah. Well, we'll have to make the time to have another conversation once that book nears release. That's fascinating. I'm excited to read it. Mike, how about for keeping up with you? What's the best way for people? Are you on social media these days or a website or anything like that?

Michael Egnor:

I'm actually not. I avoid.

Pat Flynn:

It's for the best. I'm always hesitant to-

Michael Egnor:

I took a Myers-Briggs test, I don't know... one of these psychology tests years ago, and it said I was kind of an introvert. And so I'm out there in public, but the idea of having a Facebook page just gives me chills. But I may have to do it at some point. But no, I blogged a lot on Evolution News and Views and Mind Matters News at the Discovery Institute. So readers who want to read more, I have a thousand blog posts there. And I try to blog as much as I can, but I have a day job that kind of keeps me going, too. But yeah, so most of what we've talked about, I've written about On Mind Matters News and Evolution News and Views, which are both blogs from the Discovery Institute.

Pat Flynn:

Yeah, excellent. Well, I'm sure all of the relevant links will be provided in the show notes. Again, this has been a fascinating conversation. Everybody should be sure to check out the excellent Minding the Brain Volume, if you haven't already. And Mike, thank you so much for taking the time to be here. I really enjoyed it.

Michael Egnor:

Thank you, Pat. It's been a wonderful conversation. I'm very grateful.

Announcer:

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