Beyond Materialism: Bruce Gordon on the Compelling Case for Idealism

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Announcer:

Greetings, and welcome to Mind Matters News. Over the years, multiple explanations for the nature of reality have been proposed. Physicalists will claim that the only things that exist are physical matter. However, others in the dualist camp maintain that there are non-physical aspects of reality, such as immaterial concepts like numbers, logic, or a person's mental state. Finally, we have idealists who hold that only those immaterial concepts and ideas truly exist, and our perception of physical reality is derived from those concepts.

Today, we have Bruce Gordon defending the idealist position and how he believes it best fits the evidence. Enjoy.

Michael Egnor:

Good morning. This is Mike Egnor for Mind Matters News. I have the great pleasure today of introducing and having a conversation with a good friend of mine, Bruce Gordon. Bruce is a professor of the history and philosophy of science and is a senior fellow of the Discovery Institute Center for Science and Culture. He has a doctorate in the history and philosophy of physics from Northwestern University, and he has contributed a couple of chapters to a wonderful new book, Minding the Brain: Models of the Mind, Information, and Empirical Science. And in this session, we'll discuss one of his chapters entitled Mind over Matter: Idealism Ascendant. Thank you, Bruce, for joining us.

Bruce Gordon:

It's my pleasure, Mike. It's good to be here.

Michael Egnor:

I should mention to our listeners that I had attended a conference a few years ago with Bruce and a number of other philosophers and scientists on issue of the mind. And when I came into the conference, I was a rather passionate dualist, and I spoke with Bruce throughout the conference, and he gave a wonderful presentation, and I left the conference as kind of a budding idealist because Bruce kind of convinced me that idealism is a very, very profound and productive way to look at the nature of reality.

I would ask you, Bruce, how can you convince other people about idealism? Because you've certainly convinced me.

Bruce Gordon:

Well, it takes quite a bit of background and working through the issues before idealism becomes a plausible scenario. After all, to suggest that, in a very real sense, that matter is merely phenomenological and not substantial in and of itself raises a whole bunch of questions about objectivity and subjectivity. It raises questions about how we can interact with each other, what mediates our experience of the world and of each other, and I really don't think that outside ... Although, there are people who advocate a kind of naturalized idealism. People like Bernardo Castro and others. I really don't think that there's a way of making sense of that, ultimately, which does justice

to an explanation of why there is a world at all that we experience and why we're here to experience it apart from a theistic understanding of reality.

Once you bring God into the picture, I think what you can make the case for a robust ontic idealism in a way that otherwise would not seem so plausible. Just saying that upfront, we need to come to terms, though, with why we should think of mind as being fundamental and why we should think of matter as derivative of mind in various ways.

And one of the ways, I suppose, in which you can increase the plausibility of an idealist metaphysic is to ask the question of whether it's possible to have a robust view of the mind and give an account of what seems undeniable, namely our first-person mental experience, on a materialist basis, on a physicalist basis, and then you start looking at different approaches to the philosophy of mind starting with varieties of physicalism, eliminativism, reductive physicalism, non-reductive physicalism, and you work your way through that in the various inadequacies and move on then to, well, maybe it's dualism. And you take the minimalist form of that property, dualism, and look at its inadequacies and then move on through hylomorphic and substance dualism. And they have granted much, much more to say for them.

But I still think that there are some puzzlements there and some inadequacies there. And that particularly comes into focus then if you consider, which we will, I think, in another segment, the quantum mechanical nature of reality and what that tells us about the physical world and the role of mind in it. But aside from that, there seem to be some philosophical difficulties that arise in considering dualism as well. And then that leaves one with, well, what's left? And there are two possibilities, a kind of panpsychism of some sort in which mind is a fundamental part of the universe along with a material aspect. And you start with a kind of maybe Spinozist pantheism that goes way back to Stoicism and some of its views of the way the Logos functions in the material world because the Stoics were materialist as well in that respect. And that mind infused the material realm and served as kind of an ordering principle in it but was not separate from it. Did not exist on its own.

And then we get, of course, into the modern era of the revival of panpsychism. And we can talk about the bottom-up models of the micropsychist camp and the top-down models of the cosmopsychist camp and some of the inadequacies there.

And once that is set aside, the only option left is a kind of ideal. And as I was saying at the start, that makes most sense within a theistic context, not in a naturalistic context, in which the universe would be, in some sense a self-sufficient mental entity.

Michael Egnor:

If I were a materialist, and I asked you in an elevator, "What's wrong with materialism? Why can't materialism explain the world?", what would you tell me?

Bruce Gordon:

Well, that would take us back to revisiting the nature of mind in a purely material world and whether mind can be given an account. What are the possibilities that the materialist has put forward? There's a kind of eliminativism which says that the idea that we have minds and mental states, beliefs and various other things, is really illusory. All that exists is the physical world. And then you have to try to explain what we call mental phenomena on that basis with the idea, of course, that it is ultimately not basic. It's derivative, and our perceptions of it in a common sense sort of way are deeply mistaken. There really is no such thing as mine.

Now, on one level, it would seem that the eliminativist account seems almost self-referentially incoherent because you might be tempted to say something like, "Well, the eliminativist materialist

believes that he has no such thing as a belief." And that may be a little bit unfair because he might come back saying something like, "Well, you are begging the question against me by saying that I believe that materialism is false because I've just told you I don't believe in beliefs at all, so obviously I don't believe anything in that sense."

But then how do you go on to make a picture of it? Because, presumably, no matter what else you want to say, you want to say that, well, the idea that there's a mind and that we have beliefs is false on this view. And if it's false, there has to be some object that bears the property of its truth or falsity. And what's that going to be if it's not a belief?

Ultimately, they wind up trying to have to develop a non-truth functional semantics of some sort. And, well, good luck with that.

Michael Egnor:

It seems to me ... I could see how they could try to dance around it, but it seems like a pretty hopeless endeavor. And I think they really are claiming to believe that there are no beliefs. It surprises me that eliminative materialism has gotten so far, meaning that it seems so obviously self -

Bruce Gordon:

Right, and there's eliminativists out there, and they try to maintain a spirit of optimism about what they're doing, but I don't think anybody else sees it.

Michael Egnor:

The one thing about eliminative materialism that I think does warrant some respect is that it's kind of an open admission that materialism cannot explain the mind.

Bruce Gordon:

Yes.

Michael Egnor:

And they just admit defeat. Right. The solution is not to eliminate the mind. It's to eliminate materialism.

What about, let's say that I told you that I was an Aristotelian. A hylomorphic dualist.

Bruce Gordon:

You don't want to talk about reductive materialism and-

Michael Egnor:

Please, go ahead. Yes, yes, yes.

Bruce Gordon:

Because we've only canvassed one form of the materialist approach to mind. And we're moving on to a kind of dualism if we get into hylomorphism, which I probably want to do. In any case, reductivism faces the problem of having to give an account of how something that is merely material can exhibit the properties of mentality. In particular, how it can manifest or have experience. Intentionality. How can a physical system as merely physical be about anything other than just what it is and be directed in an intentional way toward other things? And it would seem that ... And of course, David Chalmers calls this

the hard problem of consciousness. How can physical things be conscious and possess intentionality and various other things? And there is, I don't think, any genuine solution to that problem. To suggest that physical things are conscious and have states of intentionality is quite simply a category mistake, that predicating something of a physical state that it is intrinsically incapable of possessing. There's that worry.

And then, of course, on a deeper metaphysical level, quite apart from the issue of mind itself, physicalism is, I think, intrinsically incomplete as an explanation of reality. And that's going to take us into a consideration of things like, why is there something rather than nothing? And once we get to asking questions like that, we see that merely the physical universe and anything that is merely physical requires a deeper explanation. And that explanation cannot itself be something physical because, if it were, then we'd just have pushed the need for explanation back one step.

It's ultimately going to have to bottom out in something that is non-contingent and necessary as a foundation for reality. And that can't be something that's physical.

Michael Egnor:

Right. The one argument that I've heard from physicalists is that they consider the physical universe itself to be foundational, that it is not something that is in need of explanation or can be explained. It just is.

Would you accept that as a plausible approach?

Bruce Gordon:

Right. No, I wouldn't. And the reason is that the physical universe quite evidently does not need to exist. It is not necessary in and of itself. It's not necessary that it have the properties that it does. It could have been differently constituted. Any explanation of why there's a physical universe and why it has the properties that it does is not going to be achievable on the basis of something that's physical. Because something that's physical intrinsically needs explanation itself. It's going to push us back to a principle of sufficient reason. Ultimately, the physicalist is going to have to say, as you phrased it, that the universe just is. It is a brute fact that does not require and does not have an explanation.

But if it's not a necessarily existent thing with necessary properties, it does require an explanation. Its mere contingency begs explanation. And if we say that no explanation is necessary, then we've opened up a Pandora's box with respect to there being things that are the way they are for no reason at all. And if we say that some things can be the way they are for no reason at all, then we have to ask ourselves, well, which things are those? Presumably, if it can apply to the whole universe, it can apply to anything in the universe. And then how do we distinguish those things that have an explanation from things that don't have an explanation when the possibility that they have no explanation is a competing, if you like, explanation to the contrary hypothesis that they do? And ultimately, things degenerate into a kind of skepticism that is self-defeating and untenable.

Michael Egnor:

The only advantage to that way of looking at the world that I could see is that I think it would mean that, for every hypothesis and natural science, for example, Darwin's theory of evolution, that one would have to include as a possible explanation that living things simply exist as they exist, and there's no need to invoke any evolutionary mechanisms to account for them, which would save a great deal of money in terms of federal funding for research. It makes science pointless, basically.

Bruce Gordon:

It makes science pointless. Science presupposes that there's an explanation for things. And physicalism says, at a very fundamental level, that things don't require an explanation.

Michael Egnor:

Precisely. Precisely. And it would save money. But that's right. Right.

Bruce Gordon:

It would also probably leave us sitting in the dark.

Michael Egnor:

Right. Exactly. Exactly. Right. Why bother to study electricity? I mean, it just is, right?

How about non-reductive physicalism? What's the problem with that?

Bruce Gordon:

Well, non-reductive physicalism has a problem, I think, in ... It's saying that there are mental properties that supervene or depend upon physical properties, but the manner in which they do so is anomalous. It is not lawful. It is not reducible to that which is physical, but nonetheless, there's nothing else going on but physical things in the background. And if the physical things weren't there, the mental things wouldn't be there. But there is no law-like correlation between what we have as mental properties and what we have as physical properties. And, of course, this easily allides into a kind of property dualism as kind of the next stage with non-reductive physicalism. But the nature of the mind becomes something inexplicable on that basis. And we still haven't, of course, gotten beyond the point of saying and being able to offer an account of how something that is merely material could generate consciousness and give rise to state's intentionality.

And, of course, in a purely physicalist context, we don't know whether the beliefs in the mental states, particularly if there is no lawful connection to an underlying physical substrate, that are produced have any bearing on reality at all. They seem to be merely epiphenomenal in a lot of ways. And, of course, if the beliefs are epiphenomenal and not intrinsically connected to anything underneath them, they get divorced from the world in such a way that we don't know that any of our beliefs are true. And, of course, that would then feed back in a self-referentially incoherent way on non-reductive physicalism itself.

Michael Egnor:

Sure. Why is it, do you believe, Bruce, that so many philosophers and scientists, but particularly philosophers, endorse physicalism? It seems to be so flawed in so many ways. Why is it popular?

Bruce Gordon:

Well, I think that they have in part kind of been indoctrinated into a particularly modern mindset in which, in order for something to be real, it has to be physical. And if you can't access it through the five sensory modalities, then, in a certain sense, it's not real. And to be scientific, you have to be dealing with the physical world. And so if we're going to have a scientific theory of mind, it has to be offered on a physicalist basis of some sort.

Michael Egnor:

Sure.

Bruce Gordon:

Of course, I don't deny that the phenomena of the brain are connected with our experience of the world and the possibility of our experiencing the world, but at the same time, it's quite evident that they're not reducible to the brain and that it's more of a correlation, I would say, than a causation relationship between embodied states of consciousness and brain function.

Michael Egnor:

I have kind of a quirky theory about why physicalism has been so ascendant in modern science. And physicalism, I think, is kind of a mind blindness. An inability to see the mind in nature. And mind blindness is kind of a colloquial term for autism.

I really think of it as kind of a philosophical autism. And if you think about it, in order to really succeed in modern science, you have to have certain intellectual propensities and capabilities that can put you on the autism spectrum, meaning that you have to be obsessive, and you have to be great with numbers and then so on. And maybe it's not a surprise that people who succeed in that kind of way of looking at the world have difficulty seeing evidence for mind in the world. Just my theory.

Bruce Gordon:

Well, maybe, but I wouldn't want to say that everybody who defends physicalism is autistic.

Michael Egnor:

Right. Right. Right. Right. I think a lot of them are maybe just wannabe autists. They may not be autistic, but they're certainly trying to pretend they are.

Bruce Gordon:

Well, they're certainly blind to elements of reality that are there. And trying to discount them and explain them away because they don't fit with the certain story that they want to tell.

And, of course, there are sociocultural influences on this as well. It's come to be regarded as the hallmark of the educated that one discounts things that transcend nature. All there is is the natural world. And if you're to be an enlightened human being with a proper kind of education, then one needs to acknowledge that and live within the confines of that. There's these social pressures to conform in that respect in the academic world. And unfortunately, it's gotten out of touch with reality, so the academic world is missing out on the nature of the world itself.

Michael Egnor:

And I suspect that has a great deal to do with it, meaning that I certainly know, just from what experience I have in the scientific community, that there are enormous social pressures to conform. And if you are seen as an outlier, good luck on your dissertation. Good luck on getting grants. The pressure is just enormous.

Bruce Gordon:

Right. Right. And we saw that, actually, just in kind of a sidebar here, in the recent kind of reaction to Tononi's Integrated Information Theory of consciousness. There was a whole petition circulated to have it branded as pseudoscience. I find it kind of fascinating that they did so. Of course, Tononi himself is a kind of naturalist and materialist. He wants to equate the causal properties of physical systems with the first-person experience of consciousness in a way. And I think he's mistaken in doing that, though I think

his research is valuable in establishing correlations in various ways. I like what he's doing if you regard it from a perspective that he does not, but-

Michael Egnor:

Right. Right. Right. Exactly. I share that viewpoint, that I think what he's doing is rather clever and a very nice way to look at correlations between mind and physical processes. But metaphysically, I think he's quite flawed. But it's a nice way to look at correlations. I do agree. And there certainly has been a reaction against him. It's pretty impressive, actually.

Bruce Gordon:

Fairly extensive. Be interesting to see how that plays out.

Michael Egnor:

We had in our last session discussed the weaknesses of materialism, and perhaps we can move on to dualism and the strengths and weaknesses of dualism leading ultimately to looking at the perspective of idealism.

If we were in an elevator together, and I told you that I was a dualist, what would you tell me about what I get right and what I get wrong?

Bruce Gordon:

Well, if you told me you were a dualist, I probably wouldn't be overly exercised to try to change your mind because I'd think that that's not bad. It's a whole lot better than being a materialist.

However, if we were to press into the issue further, we'd have to discuss, well, what kind of dualist are you? And why do you think that that's a good way of looking at the world and a good way of understanding the relationship of the mind of the world? And really, I guess you could say there are three broad categories of dualist as well. We talk about three categories of materialist, eliminativist, reductivist, and non-reductivist. We could talk about three categories of dualists. Property dualists. Hylomorphic dualists of an Aristotelian sort of variety or of a Thomistic sort of variety. There's a subdivision in that categorization. And then of course a more robust kind of Cartesian or Neo-Cartesian substance dualism as well.

What should we say here? What is property dualism? Property dualism basically says that there are mental properties. There's not a mental substance. There's mental properties that somehow supervene upon physical properties. There are two distinct realms. Of properties, at least. Physical properties and mental properties. And the mental properties are, of course, not reducible to the physical properties. They have a vitality in some sense of their own.

Now, the concern, one of the concerns, of course, is that this really seems to have just kind of a one-way relationship. The mental properties are dependent upon the physical properties but not reducible to them, but the mental properties don't have a downward causal effect upon the physical properties, so they're epiphenomenal, and they're kind of floating free. Now, given that sort of anomalous relationship, one wonders what one can say about the nature of the mental properties, which would include things like beliefs, if they're somehow detached from the physical world or produced by the physical world and not operative upon the physical world. It seems to lead to a kind of self-referentially incoherent position in the sense that we have no confidence that the beliefs that just happen to be generated by the physical processes that generate them are in any way reflective of the nature of

physical reality that undergirds them. And they don't seem to be influencing our actions in any way, physically speaking.

What are we left with? We're left with a situation in which we are affirming property dualism and its epiphenomenal character, but we have no reason to think that that belief is true. It undermines itself in a kind of fundamental way. That's part of the problem with property dualism.

Maybe we should look at things more substantially, if you'll pardon me for saying so, and that would lead us to hylomorphic substance dualism and robust substance dualism. And in the hylomorphic category, we could start with Aristotelianism.

What did Aristotle say? Well, he said that the soul was the form of the body. And if we're talking about a substance, it's a hylomorphic substance. Forms don't exist apart from their embodiment, and every embodiment has form. And these are a fundamental unity. There's no substance without both of these things being present, form and matter, but form doesn't exist independently of matter, so obviously there's no disembodied consciousness. Everything is tied to the material world in a fundamental way. The soul is then not an immaterial entity of some sort. It does not exist apart from the body in a strict kind of Aristotelian picture of things.

But, obviously, if you are a Christian, that's going to be problematic because it ... Well, either is going to lead to a picture in which you have to put all your hope in the resurrection with a gappy sort of existence, or there just is no life after death and no prospect or hope for the future. But that's another discussion by itself.

Maybe we should then move on to Thomistic substance dualism, which is Aristotelian in the background, but it ... And I know you have sympathies in this area, Mike. Say that the form itself is substantial, and it can exist apart from the body, but it is somehow incomplete apart from the body. There's something fundamentally lacking when the soul separates from the body in this picture of things. And then we would, in following Aristotle, as Thomas did, talk about rational souls, sensate souls, and nutritive or vegetative souls. Everything that's alive has a soul, but the souls have different characters, such that human beings are rational animals in the Aristotelian picture and the Thomistic picture. But we have in Thomas's understanding a substantial form, a rational soul, that can exist apart from the body but is diminished by death and separation from the body and is in a reduced capacity state in which it has a rational existence but, presumably, it would seem, no sensory input or anything else until it is reunited with the body and the sensory components of that.

Does that sound accurate to you?

Michael Egnor:

Yes. Yes, definitely. I think so. It's a very nice synopsis of, I think, St. Thomas's view.

Bruce Gordon:

One of the concerns here, and this also comes about with a form of composite robust dualism, is the question of what the thinking subject actually is. If we've got a deep sort of hylomorphic unity of body and soul, it seems we may have two thinking subjects. The rational soul and the hylomorphic composite. Or in the case of robust dualism, the union of body and soul. And that seems problematic. I don't think it's the intention of either Thomistic dualism or composite robust dualism to say that there are two subjects with every act of thought, that namely the soul and the soul-body composite. That's a bit of a concern there. It seems like a metaphysical inadequacy or problem with the position.

And the other thing that would concern me about hylomorphic dualism in particular is the idea that the soul, once it departs from the physical body or is decoupled from the brain, if you like, is in a diminished

state of some sort. And the reason I say that that's problematic is that the evidence from near-death experiences, at least if you take that evidence seriously, and I think there are many reasons to take it seriously, seems to indicate that, rather than being in a diminished state, it is actually in a restorative and enhanced state in some respects.

In terms of being able to explain the nature of near-death experiences and what those who have been declared clinically dead and come back and reported on being revived would say is the nature of that experience ... It seems like the Thomistic account of the diminished state of consciousness apart from the body is not the case. There is, if you like, a kind of empirical dissonance that comes about through a consideration of near-death experiences where hylomorphic dualism is concerned.

Michael Egnor:

I think that that's a, I think, a beautiful summary of what I think is one of the fundamental weaknesses of Thomistic dualism is its inability ... Or two weaknesses. One, its inability to come to grips with what appears to be the unity of the human person. It does seem as though you're a form and a matter, but I don't feel like I'm two different things that are melded together. And I think the near-death experiences are a very powerful piece of evidence that favors a more robust substance dualism.

I think that you really hit the target there. A Thomistic dualist might argue that hylomorphic dualism is not a substance dualism and that there is a unity. There's a single existing thing, which is a human being, and the form and matter of the human being are principles of the human being. A principle of individuation for matter and a principle of intelligibility for form. But that's kind of a circumlocution, perhaps.

Bruce Gordon:

And it's difficult to see how then one gets from abstract principles to, particularly in the case of disembodied existence, if you think that there's an intermediate state, a conscious person that survives the dissolution of that unity.

Michael Egnor:

Yes. Yes. Yes. There's a bit of a hand-waving that goes on to explain the subsistence of the soul from the hylomorphic perspective.

Something that always that kind of interests me is that Wilder Penfield, who is a neurosurgeon who studied epilepsy back in the mid-20th century and did a lot of brain operations on people who were awake during the brain operations, and he stimulated the surface of their brain and recorded their experiences and so on and did marvelous research on that. And he persistently found what he called the mind as something that was not a part of the brain that was unitary, that could not be stimulated. You couldn't evoke it. It was just there. And it seemed to be kind of the person himself that watched and observed and used the various powers of the brain. But he said it was not a physical thing, but it was very real, and he called it the mind.

And I think he's quite right about that. And it's a little difficult to fit that into a purely hylomorphic way of understanding the human person.

Bruce Gordon:

At the very least, it seems suggestive of a kind of substance dualism, or I think that those sorts of things are certainly able to be accommodated within an ontic idealism as well.

Michael Egnor:

Sure. Sure. Absolutely. The one thing that really has led me to a Thomistic dualism, besides just my general admiration for the whole Thomistic system, which I think is a very beautiful and compelling system ... It may not be exactly correct, but it sure is nice. But one thing that has led me to it is that there does seem to be in the human mind a rather clear distinction between abstract thought and concrete thought. For example, between perception and abstract understanding, or between a sensitive appetite having a feeling of hunger and so on, and a will, which is kind of an abstract desiring something that isn't itself a sensitive appetite.

There's this division between physical and ... Maybe between material and non-material, that idealism doesn't seem to naturally account for, whereas the hylomorphic view kind of naturally accounts for that finding in neuroscience.

Any thoughts about that?

Bruce Gordon:

Well, I would say that there is kind of a form-matter distinction that is present in experience that is perfectly accommodatable within an idealist view of mind, where the formal things are abstractions from the sensory things, but all of these things have a basis not in material reality. The sensory experience ... Those are kinds of ideas that are from a neuro-phenomenological of perspective within idealism experienced through the body, at least in the embodied state. And we have sensory perceptions in that respect. And that would be the kind of material component to things, the idea of the material world, but we can, of course, abstract from the material worlds and consider things geometrically. We can extract concepts of the will in response to the more visceral sensory ideas associated with bodily desires and so on so forth.

We can make a distinction between abstraction and concrete experience within an idealistic context that is, if you like, isomorphic to the one that the Thomistic dualist would be talking about. It's just a shift in perspective, but I think you've still got abstraction and concreteness, if you want to put it that way, as a distinction between the form, the more formal aspects of experience and the more concrete or material aspects of experience.

Michael Egnor:

But one could say, if one were a bit of a skeptic on this, to say that, well, you can impose on idealism kind of a hylomorphic structure, but then why not just embrace hylomorphism?

Bruce Gordon:

Well, in a way, you have. Except the material is not substantially material. It's phenomenologically so. If you're tracking with me there. The material world is phenomenological, and one can abstract from the phenomenology of experience the forms in which that experience is presented.

Michael Egnor:

This is a really deep question, sort of kind of like my four-year-old daughter's question one time when she asked me, "Who made God?" I just didn't know where to start with that one.

But my question would be, if idealism is true, and one might say that we exist as thoughts in the mind of God, which I think is a pretty standard idealistic way of understanding reality, then what is our phenomenological concrete perception?

What is matter, and why is it there? That is, why isn't our existence entirely just abstract thought?

Why is matter brought into reality if all of reality really is only mental, and we are thoughts in God's mind? Why bother with matter?

Bruce Gordon:

Well, I wouldn't say that we are merely thoughts in God's mind. I would say that our experience of the world is a form of divine communication to us, such that we are experiencing the world in God as ideas communicated to us, but we ourselves are immaterial substantial souls. Or minds, if you prefer. We are not mere thoughts in God's mind. God actually brought into being spiritual substances. And this is a Barclayian view as opposed to, say, the sort of idealism that would be advocated by Jonathan Edwards, in which it is much closer to what you're saying, that we, too, are just a thought in the mind of God, which would make us non-substantial beings. We, too, would just be ideas in the mind of a substantial being, namely God himself.

But no, I am saying that we are substantial beings, immaterial minds or souls brought into existence by God, who experience the world in God as an idea that he gives us that is, of course, intersubjectively coordinated with other people so that we are living in the same reality.

And as far as why is there a material world is concerned, I would say that it is arguably a necessary basis for the experience as a finite being that it is not a view from nowhere. It has to be a view from somewhere. And the material world is God's way of providing us an orientation to a location in time and space in which we can bring order to our experience and relate to each other.

If you look at it in terms of relational metaphysics and being related to God as structuring our world and related to each other in the world that God has made, I think the phenomena of the material world are God's way of achieving that, and something like that would be necessary for finite beings in order to be able to have experience. Does that make sense?

Michael Egnor:

It does. It's kind of a beautiful, fascinating way of looking at it. I do note that there is a very strong flavor in that explanation that matter is a principle of individuation, which kind of brings us back to hylomorphism. It kind of seems that all of the deep insights of idealism at least have this flavor of hylomorphism.

Bruce Gordon:

Sure. And I think it's entirely possible, and I'm quite amenable to appropriating, if you like, the tools of hylomorphism in articulating an idealist metaphysic.

Michael Egnor:

Sure. It's almost as if, and I've kind of thought this in a very funny way occasionally, that idealism is true, but the structure of the mind is hylomorphic. And that it kind of blends the two of them.

Bruce Gordon:

Sure. The hylomorphic picture gives us a way of relating the concrete and the abstract in our experience and in our thought that is appropriatable within the context of idealism. Or it could have been reflective of a more substantial notion of a form-matter union rather than a mental form-matter union within a spiritual substance. But the relative merits, then, of those two pictures have to be discussed, which is part of what we're doing.

Michael Egnor:

I had mentioned in an earlier session that Bruce pretty much convinced me of the salience of idealism as a metaphysical perspective through his work on quantum mechanics. And he has, I think, argued very persuasively that quantum mechanics can really only be made sense of if we assume that the fundamental thing that exists is mental.

And, Bruce, have I got that right? And what is your perspective on idealism in quantum mechanics?

Bruce Gordon:

I think that that's a pretty accurate description of my take on things, yes. In terms of the phenomena of quantum physics itself, I see it as pointing to the fundamentality of mind in the universe. And you can take a bottom-up and a top-down approach to that if you like. A bottom-up approach looks at the experimental phenomena in the laboratory and the mathematical description, quantum physical description, of them and discerns, attempts to discern, what it entails. And one thing we can say about quantum mechanics is that it is, in a very fundamental way, irreducibly probabilistic in its description of the world.

And by irreducible, I mean that the probabilities cannot be eliminated by the addition of further information. It's not a kind of improbability that emerges from our ignorance of what's actually going on of the sort of probability that you might associate with, say, a coin flip or something like that and described in classical physics. If you knew all of the initial conditions and environmental conditions and so on so forth telling the deterministic story of classical physics and the amount of force supplied in the flipping of the coin in the air and so on, so forth, you could, in your complete knowledge of that, say what the result would be.The fact that we assign probabilities to coin flips is merely an artifact of our ignorance in a certain of the complete physical picture.

But in quantum mechanics, there is no completeness to the physical picture that would allow us to eliminate its probabilistic character. There is a fundamental, if you like, incompleteness to the reality undergirding quantum mechanics that requires us to describe it probabilistically and irreducibly so. That's one aspect of things. And of course this manifests itself in a variety of ways.

One of the peculiarities of quantum mechanics, of course, is non-local phenomena. If we think of things in causal terms in physics, that is limited by the relativistic structure of space-time, which is to say any sort of causal signal of a physical sort transmitted by the transfer of energy or whatever between aspects of a physical system or two physical systems is subject to the limiting velocity of the speed of light. If it happens faster than light, it cannot be an energy transfer of any sort that's precluded by relativity. Yet, in quantum mechanics, we have non-locally correlated aspects of physical systems in which something happening on one side of the universe can instantaneously affect something on the other side of the universe in terms of a non-local ... This would be one way of describing it. A non-local collapse of the wave function collapses. Then non-local decoherence produced by the interaction of probability waves such that there's destructive interference, and they cancel out, and reality appears stable and definite.

Those sorts of things point to the, at a very fundamental level, the immaterial quality of causality across non-local distances. And, of course, one thing that we would want to say about that is, and also about the irreducibly probabilistic nature of quantum description, is that that's not and cannot be the bottom level of the story. It points to the incompleteness of the physical world as we experience it, but it begs a deeper explanation because, if we go back to our earlier discussion in another session, we can't say that these things happen for no reason at all and that all we've got here is random devices in harmony that happen to exhibit correlated properties without any sort of explanation of why they're correlated.

There has to be a deeper explanation of the correlation. And as we've pointed out, there can't be a physical explanation subject to the limiting constraints of relativity theory for that correlation. This takes us back, of course, to a principle of sufficient reason as grounding reality. And if there's not a material explanation for something, there has to be an immaterial explanation for it that transcends the physical world.

Michael Egnor:

I think your discussion of the probabilistic nature of quantum mechanics is very compelling. And I think that does lead us into more of an idealistic or mental understanding of quantum mechanics.

But is that interpretation that you're providing only a part of the Copenhagen interpretation of quantum mechanics? For example, would superdeterminism solve the problems that probabilistic characteristics of quantum mechanics raise? Or would Bohmian pilot wave ideas solve that problem?

Bruce Gordon:

Well, the Bohmian interpretation is interesting. It privileges the position of representation in the quantum mechanical description of things and suggests that there is a quantum mechanical pilot wave in the background that enables a full description of the situation such that at least everything always has a position.

Well, one of the difficulties with the Bohmian picture is it doesn't extend well into the context of field theory. It doesn't predict the, as standard quantum mechanics does, the existence of antimatter. It still involves a kind of occult pilot wave that doesn't involve energy transfer but just, apart from observation, allows you to say where these things are located.

And, of course, once you extend the picture into field theory, all of these merits of having a location and so on disappear, and the measurement problem becomes unresolved again. I am not a fan of Bohmian mechanics. I think it is interesting. And by all means, go ahead and work on it and see if you can get somewhere, but I think it's fundamentally flawed and doesn't capture the nature of things in a basic way and is likely to lead us to the final picture of how things are.

And what's more, we can still say in Bohmian mechanics that observation causes the collapse, if you like, to definiteness. And even though we can say in Bohmian mechanics, in the non-relativistic case, at least, that everything has a location, still, when we go to take a measurement, the result is probabilistic. It has to reproduce the results of standard quantum mechanics. And reality is still staging a performance for our benefit. We don't know what it is in and of itself except what Bohmian mechanics allows us to assert certain things about it in the non-relativistic case in a kind of a gratuitous structure that is invoked simply for the purpose of our being able to say that these things have position.

Michael Egnor:

Sure. Actually, how about Everett's many-worlds hypothesis? Does that get us out of the probabilistic fix that we're in?

Bruce Gordon:

No. It still needs to account for the fact that we ... Well, here, let me put it this way. It suggests that, every time there's a quantum result, reality splits. So that, for instance, if we had three possible results associated with a quantum measurement, that all three of those results, in fact, happen. They just happen in parallel realities. And reality splits. And we split along with it so that we are experiencing each outcome in a different reality. There's this bifurcation of an incredible uncountable number of

possibilities from the beginning of the universe up to now and on into the future with even more branching arms of this universal wave function that describes all of the outcomes, and any given reality is a one path in the universal superposition that constitutes every possibility.

What the Everett interpretation is saying, if we take it in a naturalistic context, let me specify that, is that everything that can happen, physically speaking, quantum mechanically does happen. And those things that are inconsistent with each other, of course, take place in different realities. But everything that can happen does happen. And, of course, one of the worries with that, although there are perhaps some ways of dealing with it in Bayesian decision theory and various other things, as David Wallace has explored, is that it would seem that, if everything is guaranteed to happen, then how do we make a distinction among the different realities? Because everything happens would disappear. Probability one. When's the quantum mechanical probabilities then?

And then, of course, there's the question of, which basis are we going to describe reality in quantum mechanically? And it tends to lend an error of unreality to the whole thing.

Michael Egnor:

Well, and does it even make sense to describe probabilistic behavior across different realities?

How could realities connect?

Bruce Gordon:

Well, that's the problem with probability. And the jury is out whether it's ultimately resolvable or not. And some valiant attempts are being made in that direction that are of a more epistemic nature.

One of the things I would say, though, is that one can kind of absorb an Everettian picture within a theistic metaphysic, if you like. And in that context, the universal wave function simply becomes an expression of divine omniscience about the possibilities inherent in creation. So that God knows everything that has happened or in the past could have happened, and he knows what is happening and how we got here, historically speaking, and he knows all of the possibilities, physically speaking, in the future of the universe as well. And all of this knowledge is possessed in a complete and exhaustive understanding of the wave function as an expression of God's omniscience about the universe.

Michael Egnor:

Wow. That's sort of middle knowledge. That's Molina's-

Bruce Gordon:

I don't know that it's middle knowledge. Middle knowledge would say that God knows what would happen counterfactually in cases that were never realized. And if we get to cases that are never realized, there are more quantum mechanical possibilities inherent there than just one.

God knows what the possibilities are. But in order for him to know which one is chosen, I would say one needs an eternalist metaphysic in the background. And of course you get that with the Wheeler-DeWitt equation, which is kind of the analog of the Schrödinger equation in quantum cosmology.

If you take the Wheeler-DeWitt equation seriously, we've got all of these histories of the universe in superposition with each other that constitute God's exhaustive knowledge of things. And from that perspective, given that this is an epistemic thing in the mind of God, we could say that God knows what the possibilities are, and he sees the choices that are made, that he then uses to communicate intersubjectively a common world to all of us and a unique history to the universe and a unique future to the universe.

And in that case, seeing as all of these things aren't actually happening, the only one that's actualized is the one that God actualizes for our experience, and we hold our experience in common, then we can still make sense of the quantum mechanical probabilities in that context. And we can see this as a broader expression of divine omnipotence and, if you like, a God's-eye view of the creation of the information that constitutes the history and future of the universe and locally constitutes our experience of the world.

Michael Egnor:

What is particularly beautiful, I think, in the way of looking at things that you're describing is it shows the explanatory power of bringing God into the scientific picture. That, without God, all these theories seem sort of scattered, somewhat unrelated ideas. But when you bring the notion that there is a divine mind that oversees all of reality, it makes things make sense in a much more coherent way.

Bruce Gordon:

I agree. And, of course, I think that that was the reason that science got started in the West in the first instance, was that the universe was regarded as the product of a mind. And because it was such, it was intelligible to the human mind which was created in the image of that divine mind.

Michael Egnor:

Sure. How do you feel about superdeterminism? John Bell proposed that as a metaphysical perspective, and Sabine Hossenfelder has spoken about it a lot lately.

Does that get us out of the probabilistic problems?

Bruce Gordon:

Well, as far as I would understand it, it would be something that is articulated either in a Bohmian model, which we've just discounted, and that would be probably the leaning of John Bell. And I'm not sure where Sabine Hossenfelder is coming at it from. She might be coming at it from the standpoint of Everettian mechanics and the deterministic evolution of the Wheeler-DeWitt equation understood as the equation that one solves to get the universal wave equation.

In such a case, there's a deterministic development in which everything that can happen does happen in some segment of reality. And this gives rise to the interpretive problems that I was indicating earlier about the probabilities and so on, so forth, because, yes, it is deterministic. Everything is guaranteed to happen. Whereas if you appropriate that picture of things in the context of it being an epistemic tool in divine hands, so to speak, you still have the probabilities because only one of those realities is the one that emerges.

I'm not sympathetic to superdeterminism because I think the models that give rise to it, in so far as I'm understanding it at this point, and I haven't done a lot of thought or given a lot of thought to what is being called superdeterminism these days, but if it's in the context of those two models, I see them as naturalistically problematic.

Beyond this, of course, I see them as problematic with regard to questions of moral responsibility on the part of human beings and personal identity, particularly if you've got branching versions of your mind that experience different realities. And we can talk more about that if you would like, but that's just my off-the-cuff sort of initial response to your question.

Michael Egnor:

Sure. Sure. How does free will fit into all of this? Because obviously that has a great bearing on moral responsibility.

Are you a compatibilist? Do you believe that determinism of any sort can be true, and we can still have free will? Or is free will necessarily libertarian? Or don't we have free will at all?

Bruce Gordon:

I would not be a compatibilist. I would not be a determinist. I would be an incompatibilist, which essentially amounts to a form of libertarianism. In other words, I think that, in order for us to be morally responsible for the choices that we make, those choices can't be determined. And for them not to be determined, it must be the case that we could have done otherwise, and we were in control of the choice that we made. And you can tease out the difference and the necessity of those two criteria by various philosophical thought experiments. But you need to have been able to have done otherwise, and you need to be in control.

Michael Egnor:

Well, here's an interesting question. St. Thomas, I think, struggled with a definition of free will. In fact, he's sort of notoriously a little vague on free will. Not that he didn't believe in it in kind of the sense that we do. And obviously he believed in moral responsibility. But he didn't necessarily believe in it in terms of that we had the ability to do other than what we do. And I think the reason he didn't believe in it that way is that he felt that, in heaven, when we have the beatific vision, we don't have an option to sin or to do other than what we would do in God's presence, but we are still free. And God himself is free.

Does that mean that he has the option to sin and just kind of chooses not to for the time being?

Bruce Gordon:

No. I would say that God's freedom is constrained by his nature and that, as a being that is intrinsically and essentially and necessarily good, that sin is not an option for God.

Michael Egnor:

Would you say that that meant that he wasn't free?

Bruce Gordon:

No. He's free within the constraints of the Divine nature.

Michael Egnor:

Kind of the Euthyphro dilemma of sorts.

Bruce Gordon:

Well, the Euthyphro dilemma deals with questions of, is it good because God says so, or does God say so because it's good? Which is more fundamental. And the resolution of that, of course, is to take goodness into the very nature of God. The standard's not independent of him. And his commands, if you like, are consistent then. Are not arbitrary. They're consistent with his nature. I don't see the Euthyphro dilemma as an irresolvable tension if you're a Divine command theorist. I think there are ways of dealing with it and handling.

Michael Egnor:

Right. Well, it's absolutely fascinating stuff. There's one more quick question that has fascinated me since I was a young man. And I read that it really isn't clear that there is more than one electron. That is, that you can't distinguish electrons. Maybe-

Bruce Gordon:

You must have been reading John Wheeler.

Michael Egnor:

Yes. And that fascinates me that ... Would you say it is quite true that you can't really prove that there's more than one of them and that they're indistinguishable?

Bruce Gordon:

Well, I think that one needs to kind of cut the Gordian knot on that and say there are no electrons. There is nothing that is substantial that we would say is an electron.

Rather, there are various phenomena that we associate with electrons that display certain phenomenological characteristics. And this, in a way, can get back to something I didn't discuss. Kind of the Hegerfeldt annulment non-localizability of single quanta or single particles in the quantum mechanical description of the world. If you bring relativity theory into the picture, and you ask that a single electron not be able to be in more than one location at once, and that it not have be able to serve as an inexhaustible reservoir of energy, such that one could power the energy needs of the United States on a single electron from here to all eternity, then, once you've introduced those and a couple of other minor technical restrictions into the picture, you can say that that electron is not located. It follows from the quantum mechanical rules, descriptions, that that electron is not located in any bounded region of space, no matter how large. In other words, it's not present anywhere in the universe.

That's just another roundabout way of saying it doesn't exist as a physical entity in our experiential reality. The solution is not that there's only one electron, but that there are none.

Michael Egnor:

Right. Right. Right. Right. And again, I'm fascinated how idealism takes this very bizarre reality that quantum mechanics is revealing to us and makes it make sense. It brings it into focus and makes it something that kind of makes sense.

Bruce Gordon:

I certainly feel that way about it.

Michael Egnor:

Well, it has been my pleasure and privilege to have this discussion with Bruce Gordon. And thank you so much, Bruce. And thanks to all of our audience for listening to Mind Matters News. This is Mike Egnor. Thank you.

Announcer:

This has been Mind Matters News. Explore more at mindmatters.ai. That's mindmatters.ai. Mind Matters News is directed and edited by Austin Egbert. The opinions expressed on this program are solely