

Minding the Brain

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Pat Flynn:

Okay, everybody, welcome to the podcast. This is your host today. My name is Pat Flynn and I am joined by three wonderful, very intelligent gentlemen. We're going to discuss a new volume today, a new volume out from the Discovery Institute. It relates to philosophy of mind. It's called Minding the Brain: Models of the Mind, Information, and Empirical Science edited by Angus Menuge, Brian Krouse, and Robert J. Marks. I'm delighted to say I have all three of them joining me today for a panel discussion on the origin of this book and some of the contents therein. So gentlemen, thank you so much for taking the time to be here and discuss some of what's going on in philosophy of mind with me. I'm very excited.

Robert J. Marks:

Great.

Angus Menuge:

Yeah, thanks for having me.

Brian Krouse:

Glad to be here.

Pat Flynn:

Yeah. Yeah, really wonderful. And this is the first time we've all gotten together for a conversation and panel discussions are always fun. We'll try to keep it at least fairly organized, but I'm always open to some improvisation as well. But before we get into this book and some of the really cool stuff in it, let's just do some brief introductions. Bob, if you wouldn't mind, why don't we start with you and we'll just sort of just go right down the line of editors here. A little bit of background I think would be helpful to listeners. Yeah, whatever you want to say. Yeah,

Robert J. Marks:

That's great. My name is Robert J. Marks. I am a distinguished professor. You know, somebody said, "Don't say a distinguished professor." They said, "Say you are distinguished professor." So I'm going to say that. I'm distinguished professor of electrical and computer engineering at Baylor University. I'm the director of the Walter Bradley Center for Natural and Artificial Intelligence at the Discovery Institute. And I also often host the podcast Mind Matters News at mindmatters.ai. And by the way, politicians say, "Repeat it three times." So mind matters.ai, mind matters.ai. Now it's fused into everybody's mind.

Pat Flynn:

Great. Thanks, Bob. And real quick, if people have not heard our previous discussion on artificial intelligence, I would encourage them to do so. They can find that on my podcast Philosophy for the People. So thanks, Bob. Great to chat with you again. Angus, if you wouldn't mind a little introduction.

Angus Menuge:

Yeah, I'm Angus Menuge. I am a chair of the philosophy department at Concordia University Wisconsin. My area of specialization in philosophy is philosophy of mind. That's what I did my PhD on, and my books and academic articles are focused in that area. I did *Agents Under Fire* in 2004, and with J.P. Moreland and Jonathan Loose, I edited the Blackwell Companion to Substance Dualism that came out in 2018. I was very excited to be involved in this interdisciplinary project.

Pat Flynn:

Wonderful. And Brian, if you wouldn't mind an introduction of yourself, please?

Brian Krouse:

Yes, sir. My name is Brian Krouse. Unlike these two, I'm not a professor. I'm more of a interested generalist. Professionally, I have a software engineering background in management. I worked at GoDaddy; was one of the early employees there. This is the domain name registration and the hosting company, you might've heard of them. I was there for about 15 years. And my educational background, I've got an undergraduate degree in physics and math, and then a master's in computer science with a focus on machine learning and AI. And then more recently I earned a master's in applied math from University of Washington Seattle with a focus on computational neuroscience.

Pat Flynn:

Brian, that's great. And I am familiar with GoDaddy. They've gotten a fair bit of my money throughout the years, so.

Brian Krouse:

Good deal. Well, thank you for your support.

Pat Flynn:

Yeah, thank you for being here. Gentlemen, there's a lot to discuss. This is an excellent volume. I've spent a lot of time with it so far. I haven't been able to finish it because there's so much in it, but I'm excited to finish it. So the first question I have is really about the origins of this volume. And Bob, maybe we could start with you. What do you think you're trying to advance in the conversation with this volume? Why did you think that this volume was important to put together? Just give us a little bit of backstory around what sort of prompted this project and the different contributors that you got to sign on for it.

Robert J. Marks:

Well, I think the genesis of this was Brian Krouse. He wanted to do this book and recruited Angus and me eventually to do it. The reason for this book is the question of whether the mind is more than just the brain. Are we computers made out of meat? Or is there something beyond the brain? And there is a great divide in this. I think if you're a materialist, you have to believe that we are computers made out of meat. That's the reason that there are some proponents of people that say artificial intelligence is going to become smarter than we are. Because if we are computers made out of meat, then AI should be able to equal and indeed surpass us.

But if you're a dualist, if you believe that the mind is greater than the brain, this can't be done. We are more than algorithms. We are more than computer programs. And so that is in my mind with a background in artificial intelligence, the overarching aim of this book is to discuss this discrepancy. It's

basically in the old war between materialism and theism. And so that's my story. I'm sure that Brian and Angus have different perspectives on this. I'm an engineer. They come from it more in the area of philosophy.

Pat Flynn:

Yeah. Brian, is there anything you'd like to add to that?

Brian Krouse:

Yeah. Well, yeah, so answering your question about the origin story. This is a topic that I know I've been interested in it a long time as a generalist, and I think it has some appeal to a lot of people from a number of different angles, from philosophical angles, from all the discussion about AI that is in the popular press these days. Over the last 10, 15 years, there's been a lot of popular press with neuroscience too, where a lot of people talk about the way that we can really understand who we are most deeply by going to neuroscience, for example, understanding the nature of the brain.

When we started this book, we wanted to explore that general topic of the mind and the brain. But as I as a generalist dove into some of the philosophy, I found in particular that there is a lot of jargon in philosophy of mind, and it's daunting for the uninitiated to get going in that. And so one of the goals of this book is actually to clear the path of all the technical jargon, to try to make these really interesting conversations in philosophy of mind accessible to the non philosopher of mind.

The other thing we discovered is as we started diving into this is that while a lot of these scientific topics, neuroscience and computer science have a lot to say on this, a lot of experts in those fields aren't themselves experts in philosophy of mind. And so there's not a lot of cross dialogue between the scientists and the philosophers. That was one of the big goals that took shape with this book. We wanted to really facilitate a cross-pollination of ideas and discussion between the scientists and the philosophers.

Pat Flynn:

Wonderful. Well, I think you've so far done an excellent job from what I've read. And in fact, that's where I want to start because I was spending some time with Dr. Menuge's chapter, and I thought, "This is such a great summary of what's going on in contemporary philosophy of mind. The terrain is mapped really well. It's very accessible." Why don't we start there before we start getting into some of the more technical aspects of the debate.

Dr. Menuge, maybe you can just start to explain philosophy of mind to us like we're five years old. What are the different positions? What are some of the problems that people are thinking about? What are some of the proposed solutions to these problems? Perhaps we start from the materialist or physical side, and then we can maybe map the terrain on the dualist spectrum, if you don't mind. However you think would be best to present it.

Angus Menuge:

Yeah. So though in history, many great philosophers have been dualists and in fact have defended the soul, throughout the 20th century the main agenda was to try to show that human beings are simply an ordinary part of the natural world, and that they would succumb to the same kind of materialistic approach to science that was applied to the world around us. So physicalism was really an attempt to naturalize human beings to show that there was nothing fundamentally different about human beings than about other objects around us. And so early on with a scientific paradigm in mind, they suggested that perhaps we could understand this just in terms of our behavior. That idea in the end was

discredited, and so they suggested, "Maybe we could say that the mind simply is the brain," and that also ran into problems.

But one of the things that we wanted to get across in this book is that through the history of this, physicalism has proposed many, many alternatives; behaviorism, identity theory, functionalism, and so on. And yet they have met with persistent failure when it comes to really understanding the fundamental characteristics of the mind, in particular objectivity, what it is like to have an experience; and also intentionality, the ability of our thoughts to be directed beyond us onto other objects so that you can think right now about the Eiffel Tower, you can think about the past and the present. You can even think about fictional objects like elves and hobbits.

And so what's happened, interestingly, is that physicalism has really broadened out so that more and more physicalists are really offering weak versions of their view, which have to take our mental life more seriously. So something which we wanted to do with this book is to get across to people working in neuroscience and other areas of science that physicalism is not this impregnable fortress that they might've been led to believe. I think that it's been baked into the way that many scientists have been trained. But as a matter of fact, right now, the truth of the matter is that physicalism is in decline because of persistent problems, and there are a whole bunch of alternatives that are being put forward, various forms of dualism and even idealism. And so it's really becoming a wide open conversation again.

Pat Flynn:

Yeah. So Angus, one of the aspects of your chapter that I like is you present this dilemma for the physicalist, and it's essentially this. You say, look, when it comes to these different accounts of the mind for physicalists, it seems you can go one of two ways. You can either propose an account that is obviously physicalist, but also just obviously false, and I agree with that. Or you can propose an account that might not be obviously false, but it's obviously not physicalist, right? Explain that a little bit further, maybe develop it a little bit, and then we can just go around the panel here and get everyone's thoughts on some of these issues.

Angus Menuge:

Yeah. So for example, if you look at the clearly physicalist accounts that deal with third person descriptions of people, you have behaviorism, for example, that says you can understand pain in terms of the characteristic behavior it produces. Well, the problem is, it isn't true. You can be in pain and produce no pain behavior, and you can produce pain behavior and not be in pain. What's missing? Well, of course, what defines pain is the nature that what it's like to be in pain; that subjective state is simply ignored. You get the same problem with identity theory. If you say that we're just going to say that pain is a particular brain state. The problem is that all of our scientific accounts of the brain state do not imply that there's anything it's like to be in pain, but there is. And again, with functionalism, which is a very sophisticated account that says that, no, we should understand pain in terms of a very complex causal role and all the ways it interacts. But nonetheless, at the end of the day, you could realize all of those causal roles in a robot that is not feeling pain at all.

So those very clearly physicalist accounts, their problem is that they leave out really what the mental state is. On the other hand, right now we have more attention to the subject. And so physicalists have tried to give accounts of the first person perspective and how it arises, and accounts of how our mental states emerge. Now, these accounts seem quite plausible because they do take our mental life seriously, but the problem is that they're not grounded in anything obviously physical anymore. And so in fact, they seem to be slouching towards dualism.

Pat Flynn:

Yeah, that's stated very articulately. So maybe just to simplify but hopefully not make it simplistic, the problem, just a little bit, is it seems given the kind of core commitments of physicalism, really we have a twofold problem. We have a problem of trying to understand how the subjective, what it is, likeness, experiences would emerge from a purely mindless physical base; that's problem number one. Problem number two is even if they could emerge, I don't think we have a really good account of why they would, especially since they don't seem to play any particular functional role.

So if there's the function of me pulling my hand away from the pin, what is my feeling doing there? And I think from the physicalist's perspective, it's nothing. And if it's not doing anything, then why is it even there to begin with from the physicalist's perspective? I think part of the issue of trying to understand the problems here is thinking consistently within the actual inner logic of physicalism. I think most people kind of just think in a dualist way sort of intuitively, so they don't see these deeper problems of causal exclusion and stuff like that. Any of you guys want to take that thread up and develop it further? Please do.

Angus Menuge:

Yeah, I'll just mentioned on that the consistent forms of physicalism as Jaegwon Kim has argued tend to fall into epiphenomenalism, which is the idea that your subjective mental states don't actually cause any behavior. So when you're in pain, what's happening is your brain causes you to be in pain, and your brain also causes your hand to move. But your being in pain doesn't cause your hand to move at all. It has no causal power. And so epiphenomenalism seems to be the consistent position. And if on the other hand they say that pain really does do something, then they seem to violate what's called the causal closure, of the physical because now they're allowing that physical events can have mental causes.

Pat Flynn:

I think most people when they hear this, I think intuitively see that there's some serious problems here. So the question is, what is the primary motivation behind physicalism? I think that that's an important thing to gain some clarity on because once you enter in, I think, to the more technical aspects of this debate, it seems like physicalism is so riddled with holes that it almost becomes completely unbelievable, yet a lot of people take physicalism very seriously. Help us understand some of the philosophical motivations behind physicalism of why people hold this view in the first place, in spite of all, I think, these very serious problems, explanatory problems that it currently faces.

Angus Menuge:

I think Bob will have something to say on this from the point of view of artificial intelligence, but my perception is that it's the idea that we want everything to be explicable from within the same paradigm that's been successful in physics and chemistry. And since that's worked so well for explaining planetary orbits and chemical reactions and things of that kind, it's the idea that, well, gosh, in the end, the mind must succumb to the same kind of paradigm. There can't be anything special about it.

Robert J. Marks:

Yeah, I guess I can pop in here. My background is in the area of artificial intelligence, and the big move now is towards artificial intelligence, towards artificial general intelligence. That assumes that general intelligence, that is intelligence which duplicates, not mimics, but duplicates the human behavior is algorithmic. All computer programs are algorithmic. They are step-by-step procedures by which you do something. Alan Turing showed back in the 1930s that there were things which are non-algorithmic. In

other words, there were things which you could not do by a step-by-step procedure. It appears that human beings have abilities beyond the algorithmic. I would talk about simple emotions such as love and compassion and empathy, but I would also include some more complicated advanced sort of operations such as understanding, creativity, sentience, for example, are things which are not able to be generated algorithmically in a physical sort of sense.

One of my favorite examples is talking about biting into a lemon. You bite into a lemon and you have this experience, and that's the experience of the of the lemon as you bite down and all the juices pop in your mouth and you taste the sourness. You literally have an experience, which I've learned is called qualia. So you have this qualia experience. Now try to explain that experience and duplicate that experience in a person who has been void of the sense of smell and taste since birth. You can explain things like the color of the orange, you can explain chemistry, you can explain the mechanics of biting, et cetera. But actually duplicating that experience in the person is simply not possible. And I think that that's kind of intuitively obvious.

So if that indeed is the case, how are you going to write an algorithm, how are you going to write artificial intelligence to duplicate that non-algorithmic experience in a computer? It's simply not possible. And carrying on with that understanding is also something which is non-algorithmic. Creativity when properly defined is also non-algorithmic. So there are these things which are not physical, which cannot be duplicated by a computer. I think that that's evidence that we are more than, as I said, meat computers, and that we are more than simple algorithms.

Pat Flynn:

That's great. I definitely want to turn and focus a little bit more on artificial intelligence as we move along. But first, Brian, we've put a lot on the table. Do you have any thoughts or opinions on anything stated so far?

Brian Krouse:

Yeah, so let me pipe in as sort of from the generalist perspective here. I've got a list in front of me of five properties of mind that J.P. Moreland has put together that he has noted that resist a physicalist explanation. And one thing I like about this is there seems to be just something categorically different about the nature of the mental that oftentimes just going through life we don't really think about too much, but it's just a categorically different set of properties that the mental has than the physical has. You've talked about a few of these, this qualia, that what it is like experience is one of them.

Another is the fact that our mental states have often intentionality or propositional content, sort of a directiveness towards something. You have thoughts of an object. And that's not really something that we think a physical object has. If a physical object is representing information about something else, that's something that our minds are interpreting within the physical object. But the physical object itself, we don't really think that has intentionality. We have the property of mental states that they're inner and private and immediate, whereas if you think about the physical sciences, it's all this emphasis on third party accessible facts. But the mental is fundamentally first person. So there's this categorical difference between the two.

And then we also have the property of the mental that it requires a subjective ontology. Our mental states are necessarily, they have an owner. There's a first person subject that owns these mental experiences. So you don't really have a pain state without a person having that pain. And again, that just seems categorically different than physicalist explanations.

And then of course, mental states lacks some properties that physical explanation has. So when we think of physical objects, we think they have spatial extension or location and things like this, but not really so with mental. And so you have this categorical gap.

And maybe one other point here, and I'll let you jump back in, Pat, is what's interesting about this to me is, I couldn't speak to the precise historical motivation for how physicalism came about, but if I were to just imagine, physics obviously has had a lot of success in describing the external world. We're all aware there's an external world that is not something that we control directly. It's a reality that we interact with, and physics and mathematics have been remarkably successful in describing how that works. And so with the success of that, perhaps it could start to feel like that itself is the fundamental reality; that's what's most real, and we need to describe everything in those terms.

But one thing we oftentimes forget is that the way we got to understand these physical models is by collecting information through our senses, through our mind, and then using our rational faculties of our mind to build these models about the nature of reality. And so in a sense, the mental is actually, it's there much more prominently and primarily than the physical is, but we sort of seem to lose sight of that somehow in our modern world.

Pat Flynn:

Yeah, that's great, Brian. So let me try and simplify things again, and then we can dive in a little bit further to some of the other chapters in this book. But it seems to me that there's something of a fundamental construction problem for the physicalist. While some constructions might seem improbable, other constructions seem actually impossible. Here's a common example that's sometimes used. If I have an enormous number of white blocks, maybe even an infinite amount of them, and an infinite amount of time, it doesn't seem like I'll ever be able to construct a purple tower. And that seems perfectly clear to reason. It doesn't matter how many blocks I have, it doesn't matter how much time I have to tinker around with them; there is a qualitative chasm that cannot be crossed in principle if those are the only materials that I have available.

I think there's an analogy here with some of these constructions for the physicalist. For the physicalist, everything seems to need to be reducible, or at least not obviously repugnant to its physical mechanical base. Yet we're told that everything's sort at the root of physicalism is effectively everything that consciousness is not, right? There's no subjectivity, there's no intentionality, there's no even determinant formal content. One of the major aspects of thinking is that we have exact conceptual content that we think about things in extremely precise way to exclude other possibilities. But everything physical is sort of fuzzy and indeterminate in a sense.

So what we have is not just one instance of this immense sort of leap as if by magic across a category, but many different categories. We're supposed to think that somehow this stuff that has no intentionality or directedness or about-ness or any subjectivity or qualia or formal content whatsoever, somehow through sufficient complex arrangements just flipped or inverted into its complete qualitative opposite. And to me, that just sounds like magic. Right? And I think, and I'm not the first one to say this, but I think when you look at a lot of philosophy of mind and you find certain terms like emergence, maybe a good test is to see if you could replace that term with the word magic and if you lose anything by way of explanation.

I want to turn this back to Angus. Angus, clean up anything that I just said there or offer any clarifications, but maybe we should talk about specifically strong emergence and how this does seem more or less synonymous with magic in many instances, and why that's a problem for physicalism. Because if it is the case that something is not reducible to this physicalist space and that we have to be

open to a wider range or mode of explanations, it seems like physicalism is just, where's the motivation anymore, right?

Now, I think that there's other issues with scientism and physicalism in general, but I think you kind of see that the issue I'm trying to gesture at. So Angus, I'd like you to take it up from there. Maybe talk to us a little bit more about these radical forms of emergence. Because I think this is where a lot of physicalist are led is to this idea of strong emergence, and why that in particular is a problem. Even if we think that emergence has happened, which I think is obvious, why that is a problem for the physicalist, if that makes sense.

Angus Menuge:

Yeah. So the stronger forms of emergence want to say that it's not just that the mental is determined by the physical, which is what supervenience would say, but that you now have these novel properties, properties that come into the world which are not determined or based really in anything physical. And so it does appear rather like magic, because if we have new causal powers, then we have a whole different kind of property. And it seems intellectually sort of irresponsible to say that, well, we get to keep those as somehow belonging to the physical realm when they're utterly unlike any of the physical properties that we can study in any physical science. It seems as if they belong somewhere else. And this can be strengthened by the fact that when we look at physical objects in particular, they're always made of separable parts so that they retain their identity, whether they're in a system or not.

You can take a neuron out of a brain and it'll exist just fine outside of it. You can put it in somebody else's brain and it'll be just fine. But you can't take a thought outside of somebody's mind and expect it to be the same thought. It can't exist outside of a mind, and it can't exist in anyone else's mind. And so you have such a radical break between these two sets of properties. It seems a perfectly reasonable thing to ask, well, perhaps it's because they belong to fundamentally different kinds of objects. After all, how is it that we distinguish objects by their different properties, by the different causal powers?

Pat Flynn:

Yeah. Excellent. Here's one more question related to the physicalist theories of mind, and I'll let all of you take this and all for your own response if you want. Just to do a little bit of steel manning, the opposite of straw manning, that's a popular term. What do each of you think is the most promising model in philosophy of mind for the physicalist right now? Maybe it's functionalism, maybe it's something else. And what do you think is still fundamentally wrong with it?

Angus Menuge:

Well, that's a difficult question because they've proliferated so many options.

Pat Flynn:

That's true.

Angus Menuge:

Yeah, the most prominent option is some variety of functionalism, and it does address one side of the issues quite well. David Chalmers puts this quite beautifully where he says, "Well, the easy problem of consciousness is what consciousness does." You can probably come up with a functional model that provides quite a good account of some of the things that consciousness enables us to do. The problem is it doesn't in any way address what consciousness is. Because at the end of the day, you can take any of

these functionalist accounts that define mental states in terms of their causal role, and you can have a robot or other artificial system that will embody that causal role perfectly. There's no problem at all creating a robot that will retract its robot hand if it detects heat, for example, and act in every way as if it were in pain. And it can be programmed to say, "Ow, and, "I'm in pain," and so on, but there's no reason whatsoever to think that the robot is in pain.

I'm also somewhat sympathetic with the constitutionalist views of people like Lynne Rudder Baker in that she at least has a very strong sense of the first person perspective, and we need to capture that notion in any account. It's just that I happen to think that at the end of the day, the first person perspective assumes the existence of a mental person. And so that in the end, her account will turn out to be a dualist account and not really one that's compatible with physicalism.

Pat Flynn:

Yeah. Great. Bob and or Brian, anything that you two would like to add to this?

Brian Krouse:

Go ahead, Bob. You first.

Robert J. Marks:

No, you first.

Brian Krouse:

Okay. All right.

Robert J. Marks:

Beauty before age, I guess,

Brian Krouse:

Right. Right. Right. I think I would agree with Angus there with some variety of functionalism. But any philosophy of mind that tries to acknowledge the reality of these mental features rather than ignore them is better than one that basically tries to ignore them like some form of a limitivism. But maybe more I would say is that a lot of the physicalist science obviously has a lot to offer. We're just at the beginning, as we talk about in some of our neuroscience chapters, of trying to understand exactly how the brain works. If the brain is interacting for sake of argument with some kind of immaterial soul in some sense, then there would be a lot of room to try to figure out the mechanics of how the brain is involved. And then of course, artificial intelligence. One way I think of that is basically it's sort of trying to externalize our human ability to compute; externalize and build on that. So starting from calculators that can externalize arithmetic, to artificial intelligence today that's externalizing these more generalized pattern finding algorithms. Obviously that's very productive.

Pat Flynn:

Yeah, good. Bob?

Robert J. Marks:

Yeah, I was just going to return to the idea of emergence. This is a big thing in artificial intelligence that if you get artificial intelligence, if you get computers smart enough, there's going to be this emergence

of superintellect. George Gilder has a great name for this. It's kind of a religious feeling. He calls it rapture of the nerds.

Pat Flynn:

Wow.

Robert J. Marks:

He believes, and I agree with him, that there is this feeling that eventually if... Well, it gets back to your example, Pat. If you have a horse and you exercise this horse and you get it to do more and more things, that eventually it will magically turn into a tractor. That's simply not going to happen. And it turns out that emergence was looked at in an area called artificial life. There was actually this great program called Tierra that tried to look at emergence and duplicate superintelligence just by computer programming. It was a total failure.

In all of these cases, if you look back at the original program, sometimes you get some surprising results. I've done some work in swarm intelligence where I get a result and I say, "Wow, I didn't expect this." But surprise does not equate to creativity, because we were always able to look back at the code and we were able to say, "You know what? This is something that we allowed and it happened. We didn't expect it. But indeed, here it is." So it was not original. It was not beyond the intent of the original programmer. It was not creative. And emergence, as far as getting more than you started with, is just a pipe dream, and as Gilder said, "Rapture of the nerds."

Pat Flynn:

Yeah, I love that phrase. There's two things I'd like to explore related to everything that was just said. One is that I don't actually have a particular issue with emergence. I think emergence is something that does happen in the world. So the question is not really whether emergence occurs, but how it occurs. How can emergence occur? So even if there were these instances-

Robert J. Marks:

Can I challenge you, Pat?

Pat Flynn:

... yeah, sure.

Robert J. Marks:

Where do you think emergence occurs?

Pat Flynn:

Well, I guess I'm sort of an Aristotelian in the sense that I think that once certain conditions are met, we do have novel substances that emerge that have systems level properties that are over and above the power of what we think are their constitutive parts. And I think this happens at the level of water, for example. I don't think we even have to get into philosophy of mind with it. Angus, I'm sorry, did you want to chime in there too?

Angus Menuge:

Yeah, I'd like to comment on that. That kind of emergence does happen. So for example, a solitary H₂O molecule does not exhibit liquidity, but enough of them in the right temperature range will. And likewise, you've got Sperry's famous wheel that you can have individual molecules that can't roll, but if they're configured into a wheel, then they can. However, in all of those examples, you can analyze the new property in terms of external relations. There's structural properties that arise when you configure things in a certain way. Precisely why that's a problem for understanding the mind is that it doesn't seem to be a system of parts. This is because every experience and thought that we have seems to refer back to this one same subject, and this is why thoughts and experiences don't seem to be separable from that unified subject in the way that those molecules are separable from one another.

So there's a difference between structural properties like the ability to roll as a wheel that can emerge based on external properties, and properties that inherently refer to one single subject. I don't think that the unity of consciousness can arise simply from configuring external parts in different ways. It doesn't matter how complex the brain is.

Robert J. Marks:

Is there a difference between emergence and design? Isn't design another explanation for the examples that you've given?

Pat Flynn:

I'll let Angus clarify, but one of my follow-up thoughts to what he said is even though you could bring something like liquidity down, you can't bring something like wetness down, if that makes sense. One of those relates to the qualitative dimension, whereas the other one is sort of reducible in a sense that I think that most physicalists and I think everybody should obviously be open to.

My general point is that I don't think that the notion of emergence should at all, at least generally, be an issue for people who are of a dualist stripe, because I think they can give a more robust account of emergence. I think that the general problem is that if you're committed to emergence, especially strong forms of emergence as a physicalist, that is where you've really run out of explanatory juice. So my position is not to just set emergence off the table completely, but to say that if you do have an idea of emergence or if you're committed to various forms of especially strong emergence, that's just reason not to be a physicalist, if that makes sense.

Robert J. Marks:

Okay. I guess I would propose from the point of a computer program that there is no emergence that anything that you look at which looks like emergence is a product of the design of the computer program.

Pat Flynn:

Angus, did you have follow up to any thoughts on those fronts?

Angus Menuge:

Well, I mean, even without design, if it just so happens that if enough water molecules get together liquidity emerges, and even without design, if it should just chance that molecules are configured in a certain way, so they're like a wheel, they can roll. So I don't have a problem with that kind of structural emergence. I just think that it's irrelevant to the unity of consciousness because that reveals that our thoughts and experiences belong to this one simple subject. And that's exactly why there is a difference

between liquidity and wetness, because as soon as you talk about wetness, you're including the subjective experience of what it's like to experience a liquid, right? It's inherently a phenomenological property, and so it can't exist without a subject, and that subject does not emerge from liquidity or any other structural property; it requires a different kind of subject.

Brian Krouse:

Yeah. Just to jump in briefly there too, Pat. I think with the water liquidity example, I think what we're saying there by invoking this word emergence is that if you were to just look at an individual water molecule, you probably wouldn't predict the qualities of liquidity. But knowing what happens when you have a collection of these water molecules, you can look back and explain liquidity in terms of the properties of the water molecule. So you see the path of physical explanation in terms of the micro structures of the water molecule as they're grouped together.

But the problem with applying that same concept to the mental is just it gets back to this categorical gap. We have got really no way of seeing how the physical type explanations could suddenly bridge the gap to explain something so categorically different as these mental properties.

Pat Flynn:

Well stated, Brian. If we could highlight two positions that I think that from my mind are within the naturalist paradigm, broadly speaking; and to be clear, not all naturalists are physicists, even if we think all physicists are naturalists. I don't know. I'll say that on Twitter, and then somebody will come out and be the most exotic naturalist I've ever seen in my life. So I learned to be not so sweeping in what I claim. But generally that's the case are the positions of panpsychism and eliminativism, which Angus already brought up. The reason I like both of these positions is I think people in both of these camps see the fundamental issues very clearly that we're talking about. They just go in two different directions.

So the eliminativist sort of realizes, "Hey, everything that we're talking about here is right. If we're starting from a physicalist base, we're just not going to get that qualitative dimension." And so the stronger eliminativists who aren't just saying, "We can remove talk of the qualitative dimension from our theories of physics," but are actually saying, "There just is no consciousness. It's all an illusion," or however they talk about it. I think that position is absurd. I think its statement is its own reputation. But they seem to be at least consistent, or as consistent as one can be within that paradigm.

Whereas the panpsychist I think also realizes that this is a serious issue, but what they do is they go the other direction and try and put consciousness or subjectivity down back at the root. But then I think this is where we see the dilemma that Angus brought up is, okay, where the eliminativist is, I suppose, still very much within the physicalist paradigm, the theory itself just seems entirely unbelievable. Whereas the panpsychist is, okay, maybe we have something that we can at least start to work with. I think panpsychism faces its own problems. It's hard to see how this really fits within a physicalist framework anymore. Do you guys think that's a fair characterization of the two ends, maybe two of the extremes here that I think highlight the general issue that are admitted by many people that would consider themselves a naturalists?

Angus Menuge:

Yeah, I think that that does a good job. The eliminativist position, people like Paul and Patricia Churchland, it's just ruthlessly physical, and it concludes that, well, since intentionality and subjectivity are such real problems, they just must not exist, and then it'll pay the very heavy cost of denying them. Whereas for a while, Chalmers toyed with panpsychism and panprotopsychism, but he's basically concluded, "Well, the mental properties can't simply arise from arrangements of physical parts,

therefore they must somehow be incipient or implicit within the physical itself." But of course that means that you're loading up reality with a different kind of property, and so you're really just moving dualism to the building blocks.

Pat Flynn:

Yeah. Excellent. I think that this is a great place to pause the first part of our conversation. We are going to end it here for today. And of course, we have much more to discuss, so I invite everyone to stay tuned for part two. Thank you, gentlemen.

Announcer:

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