Is The Mind an Illusion?

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Robert J. Marks:

Greetings. Welcome to Mind Matters News. I'm your neuro host Robert J. Marks. We are visiting with Dr. Andrew Knox. Dr. Knox is a neurologist at the University of Wisconsin School of Medicine and Public Health. Andrew, welcome.

Andrew Knox:

Thanks so much.

Robert J. Marks:

We want to talk today about the so-called mind-brain problem. Sometimes it's called the mind-body problem, and it's been debated for centuries. And the question is, is the mind just a part of the brain? Is an emergent property of the brain? Is consciousness part of the brain? Or are there parts of the mind that are distinct from the brain?

Now, there's two schools of thought in the extreme on this. There's the monist, who believe that the mind is an emergent property of the brain. And then there's the dualist, who believe that the mind is separate from the brain in some sense. There might be some overlap, but they're certainly not distinct. I would wager that most theists are dualists. Descartes, for example, in talking about the mind-body problem, talked about the mind as the soul. And Andrew, you have mentioned to me that you think that most neurologists are monists. Is that right? And if so, how come?

Andrew Knox:

So I think there is a bent towards being a monist for a couple of reasons. One is I think just, from a worldview standpoint, many of the people I've worked with in neurology seem to be of a naturalist bent. So the idea being that all there is the physical world, and I think that lends itself to the monist viewpoint of the mind-brain problem.

The other practical reason is it sort of comes out of how the field of neurology developed. We talked a little bit about strokes, and how you look at a patient who has an injury to a particular part of the brain and then you see that they lose a particular function. So neurology kind of has embedded into it this way of thinking that certain parts of the brain do certain things, are associated with certain functions. And it just sort of naturally leads to the idea that, "Okay, the physical substrate, the brain, does this thing or that thing. And so, probably, it's responsible for all of how a person is." Does that make sense?

Robert J. Marks:

Yeah, it does. Okay, understood. So, wow, most of the neurologists are monists. I helped write a biography of Walter Bradley with Bill Dembski, and Walter was in deposition one time, and he was questioned about the difference between a naturalist and a theist, in his case, specifically a Christian perspective. And he was asked the question from an ACLU lawyer who was a naturalist, an atheist. He said, "Dr. Bradley, are you a Christian?" He says, "Well, yes I am." And he says, "Well, how as a Christian can we trust you to come up with definitive, disinterested answers in the area of science?" And Walter was testifying about science books in the state of Texas. It's a really big thing, because when a science book is adopted in the state of Texas, it's adopted in a number of different states.

Bradley's response was, I think, wonderful. He said, "I'm sorry, sir, I'm not the one with the problem. You're the one with the problem. You have ensconced yourself in a small silo of expertise and belief, and everything that you come across must fit within this silo. Now, I can accept things happening in a natural way," he says, "but, from my perspective, it isn't the question of whether or not God did it. The question was how God did it. And I would say, sir, that I have a much broader perspective and can be much more objective than you are, because you are constrained to this little silo of naturalism."

I thought that was just a beautiful response, and I think a very appropriate response for people that are naturalist. And this is what you're saying of neurologists, they believe they're monists, so everything that they see has to be fit within this little silo of naturalism. It's frustrating.

Andrew Knox:

Well, it's a good example. We all like to think of ourselves as impartial or fair judges of things, but we're all constrained by the things we believe about the world. Sometimes those assumptions have practical implications for a question, sometimes they don't. But in this case, if you are someone who thinks that there only is the physical world, then, of course, you're going to say, "It doesn't make any sense for there to be a brain and a soul, like two separate things."

Robert J. Marks:

Yes.

Andrew Knox:

You're sort of stuck believing that it has to come out of the physical activity of the brain itself. And to be fair, someone who is a Christian has probably some of the same or are bringing some of the same assumptions in, and it affects how we think about the problem a little bit too. If you're a Christian, you're told in the Bible that there is a soul and there is the body and there are different things. And so you can't help but bring that into how you study these sorts of problems.

Robert J. Marks:

That's true. Everybody has their bias. I always say artificial intelligence without bias is like water without wet.

Andrew Knox:

Exactly.

Robert J. Marks:

You have to some sort of bias. But in my case, there's been a number of times when my mind has been changed. And I think that that's one of the beautiful things about faith and specifically Christianity, is that you can address any problem. There's nothing which prohibits you from looking at anything. Well, you mentioned some things which happened in neurology that you think are problematic for the monist, and I'm wondering if you could go through some of those, from a neurologist's point of view.

Andrew Knox:

Sure. Now, I think it's probably worth giving the disclaimer that I'm not sure that any of these things are an absolute invalidation of the monist standpoint.

Robert J. Marks:

Would you say, however, they are evidence of dualism? Yeah.

Andrew Knox:

Yeah.

Robert J. Marks:

Okay.

Andrew Knox:

They are problems for monism or things to consider.

Robert J. Marks:

Well, yeah, I love a quote by Stephen Hawking. He said, "Nothing in physics is ever proved, you just accumulate evidence." Nothing in physics is ever proven, you just accumulate evidence. So this is evidence for dualism. Not a proof, but evidence. Okay, go ahead. +.

Andrew Knox:

And neurology is way worse than physics too, right?

Robert J. Marks:

Yes.

Andrew Knox:

I mean, there is plenty of unknown in both domains, but one of the things that draws some of us to the neurology is just, there's so little that's known that there's still a lot to be learned, which is fun. But I always think it means you should also be cautious about making absolute assertions as to how things are working.

Robert J. Marks:

You shouldn't make absolute conclusions about something. You're absolutely right. Okay, go ahead.

Andrew Knox:

Brilliant. Okay, so let's start with epilepsy, since that's sort of the area that I know best.

Robert J. Marks:

Yes.

Andrew Knox:

Okay. So if you assume that the soul entirely comes out of the brain, or that the mind and the brain are the same thing, if you remove enough of the brain, you'd expect to see substantial changes in a person. But you can do fairly dramatic surgery affecting part of the brain and not see a change in how the person acts or how they behave or who they are. So we have some patients who have more severe kinds of epilepsy, where seizures start up on one side of the brain and they can't be controlled. So

there's a procedure you can do called a hemispherectomy, where that entire half of the brain is removed.

Robert J. Marks:

They take out half of your brain.

Andrew Knox:

Historically, they took out literally half of the brain, then they discovered there are a lot of complications that come with actually physically removing half of the brain. So they've shifted to disconnecting half of the brain. So they still take out a chunk of that brain, they disconnect the corpus callosum, they disconnect other motor pathways, and that... The physical brain still remains there, but it's not connected to anything else and not doing anything anymore.

Robert J. Marks:

Really? Okay.

Andrew Knox:

Yeah. So even with removing half of the brain, the person doesn't seem to change. They will have some new deficits, so they won't be able to see half of the world on one side. They probably won't be able to move their arm on one side well. They won't be able to move their leg well. There can be some subtle changes in cognitive function, like how they would do on an IQ test, but it's not a very dramatic change.

Robert J. Marks:

So their IQs would probably go down a little bit, is that what you're saying?

Andrew Knox:

Yeah, they would. But it's not like they're a different person, despite half of the brain being gone.

Robert J. Marks:

Oh, my goodness. One of the arguments that I've heard, this is from a neurosurgeon, Michael Egnor, he does operations, there's probably a fancy word for it, he calls it a split brain operation, where they go through and they separate the left half of the brain hemisphere from the right half of the brain hemisphere in order to get rid of communications for an epileptic signal that starts on one side of the brain and goes to the other side of the brain. If you do the slicing, then that communication path is disrupted.

Now, if we had a mind associated with the brain, after that, you essentially have two brains, I think. And it's like you said in these, well, let's see, a word I learned from you, hemispherectomy. It's like in that where they remove part of your brain, you're still you. You still have the same mind, if you will.

Andrew Knox:

Right. So that's maybe even better evidence that it's more complicated than just the physical substrate of the brain correlating directly to who you are. Because like you said, there aren't two yous. You don't see those people arguing with themselves or running into those sorts of problems.

Robert J. Marks:

I do understand that they do have sometimes some psychological problems they have to overcome.

Andrew Knox:

Yep, it is true. And there are some symptoms you can expect to see right after surgery. Some of those get better. Sometimes there can be sort of strange things that happen, an arm moving on one side of the body in a way that you don't expect or that you don't feel like you have total control over. But, again, it's not like they're two separate people living in one brain.

Robert J. Marks:

So I think that that is very, very compelling. Now, are you familiar with the split brain operation? Do they totally do the split brain? They're still something common, isn't there? Isn't there still a pathway?

Andrew Knox:

There are still connections, yeah. So the split brain operation more formally is called a corpus callosotomy. The corpus callosum is the major connection between the two halves of the brain.

Robert J. Marks:

I see.

Andrew Knox:

There's still some small connections, an anterior and posterior commissure and some frontal connections as well. But I think wouldn't expect those are mitigating a lot of a person's consciousness. So all of that to say, I think your point holds true that the fact that you don't become two people with a corpus callosotomy is a problem for the monist viewpoint.

Robert J. Marks:

Another one that you pointed out, which I agree, is evidence that the mind is separate from the body or near-death experiences. You've been around a lot of patients that have had brain surgeries, and they've probably been anesthetized maybe to the point of, I don't know, I don't think that they're brain dead, or maybe they are brain dead, but they come back, and they've had these incredible out of world experiences. Tell me about your experiences and your thoughts about near-death experiences.

Andrew Knox:

Well, yeah, so actually my experiences in that domain are relatively limited. There aren't too many I've had who have run into those sorts of experiences. But I understand that you have researched some of these things working towards putting something together. Yeah?

Robert J. Marks:

Oh, yeah. In fact, I think that it's just incredible evidence of something happening above and beyond the brain. And there is this great book that I just read by Bruce Greyson, it was called After. And Bruce Greyson was a psychiatrist, and he got interested in near-death experiences and he actually formed a society that studied them. He published a lot in them. He had a journal, which he started on near-death experiences.

And this is really interesting. If you go to amazon.com, they have a list of tens and hundreds of books on near-death experiences. It's something which has just become popular in the last, I don't know, decade

or so. I think it's because of the medical capability of resurrecting these people after they are brain dead and body dead, and having these out-of-body experiences.

But Greyson points out, he says that, "90% of the people that have these near-death experiences believe that they are real. They're also life changing. They come out this situation, totally different people." And he just finds this astonishing. So I don't know if anybody's interested in near-death experience, Bruce Greyson's book is recommended. It's called After. Now, he's a psychiatrist. He is an atheist. And I don't know, for some reason, not being a theist gives people more credibility. I don't know if that's necessarily true, but we use that a lot.

If you want a more theist book, I think a great one is by John Burke called Imagine Heaven. And he also has a sequence of videos on YouTube. And the videos on YouTube are incredibly compelling. Because, I tell you, read about near-death experiences, that's one thing, you talk to the people who have experienced the near-death experiences, and it's totally different. You see their commitment, they begin to cry, they begin to break down, and a lot of people display wonderful, wonderful experiences of going to heaven, if you will. And that's what John Burke says that they do. Bruce Greyson doesn't say heaven, but it is kind of an afterlife experience.

But the ones that are chilling are the ones that went to hell. And you want to watch something that is just chilling, watch the John Burke interview with a guy that went to hell. And you see this guy, he breaks down, he just starts crying and sobbing when he relives this near-death experience. And you know that, indeed, these are real experiences in the sense that 90% of the people that have them say that they are real.

Now, I actually asked one of your colleagues, Tononi, about near-death experiences. He said, "Well, I can give you drugs," like, I don't think he mentioned it, but LSD or peyote mushrooms or something like that, "and you can experience something similar." But there's near-death experiences which are documented, and it's more than one, again, it isn't proof, but it's certainly evidence about the things that these near-death experience people go through. One of which is, in more than one equation, one equation, that's my engineer coming out, more than one occasion that somebody who has been blind since birth is able to see, and what the heck is happening there?

They talk about, there's this one story about a girl that didn't know what she was experiencing, but finally she saw herself on the operating table, and she was able to identify, I think, it was something she was wearing or her hair or something like that. And she says, "Oh, my goodness, I'm seeing for the first time in my life." There's other cases where people had out-of-body experiences, they could tell things that happened external to the operating room. In one case, there were objects which were not visible at all from any perspective, and the person experienced them.

In fact, Bruce Greyson, the way he got interested in near-death experiences was really fascinating. He said he was eating his french fries or something like that, and he was putting ketchup on them, and he had a beeper, so he's been in this area for 40 years. The guy's been doing near-death experiences for 40 years. So his beeper went off, and they used to call that beepilepsy, where the beep went off and he jumped and he spilled ketchup on his tie.

Well, he took his napkin and he dabbed it in a sheet of water, and he rubbed it and tried to get it off and it couldn't go off. It turned out at the time, he was a psychiatrist, now, he was treating a girl that had tried to commit suicide that was in a deep coma. And he began to talk to her sister trying to tell her what was going on with her sister that tried to commit suicide.

Well, the next day, or in a couple of days, he met with the suicide victim and they begin to talk. And the suicide victim, who was in a coma said, "Yeah, I saw you." And Greyson said, "Well, yeah, sure." I don't know. I'm a big skeptic. If I hear a single anecdote, I like to see a bunch of them in order to accumulate

evidence. But a single anecdote doesn't make it. But she says, "Yeah, I saw you talking to my sister." And he thought, "Yeah, sure, okay." She said, "Yeah, you were wearing a gray flannel suit and your tie had this red spot on it."

So she was able to actually identify that red spot, not having seen her sister or talked to anybody else, in terms of that out-of-body experience, that near-death experience. And I don't know how those sort of experiences, such as blind people seeing, such as identifying objects not visible anywhere and these other things, I don't see how they could be induced by taking LSD or peyote mushrooms.

Andrew Knox:

Right. Yeah, I agree. I think that, if you're trying to argue for a dualist perspective, those sorts of stories are the most compelling from near-death experiences. Ones where people witness what happens while they are cardiac arrested or that sort of thing, and can reproduce those details. It's hard to explain how that would happen just from a monist viewpoint.

Robert J. Marks:

Yeah, exactly. And when pressed on this, most people kind of change the subjects. In other words, this is not addressable. They think it's some sort of parlor trick or some sort of thing.

Andrew Knox:

Yeah. Well, I mean, right. And to be fair, it's easy enough to say, "Oh, maybe some of those stories have just been made up, or people added those details."

Robert J. Marks:

Yes.

Andrew Knox:

I haven't talked directly to the people who have had these sorts of experiences. But, yeah, I don't know, I prefer to take them at face value at this point.

Robert J. Marks:

But reading, again, Bruce Greyson's book called After, he has documented thousands of these near-death experiences, and he has a number of these unexplainable cases which are documented. They're just, I don't know if they're chilling, they're a little bit chilling, but they're also pretty compelling. I think they are. So I guess I've revealed myself as a dualist. Where are you at?

Andrew Knox:

So where am I? I am a dualist as well. I'm perhaps a weaker dualist than some. There's certainly all sorts of ways that the brain and the mind are interrelated. I think I mentioned in passing, you can't remove both temporal lobes, because if you remove both temporal lobes, you can't form new memories.

Robert J. Marks:

Yes.

Andrew Knox:

Memories seems like something that's an important part of what the soul is, or our mind, or our spiritual self. So again, it strikes me as a way where the two certainly are closely linked together.

Robert J. Marks:

Oh, I don't think it's distinct. I think that there is fuzzy overlap. But I think believe, I think, in the area of what you say you think, that, yeah, there is kind of compelling evidence that the mind is not totally a part of the emergent property of the brain.

Andrew Knox:

So the question becomes, is the mind entirely dependent on the brain? Or can it exist the part from the brain? Or are there parts of the mind that are definitely distinct from the physical brain?

Robert J. Marks:

Yes.

Andrew Knox:

And I think that's probably true. Or I think that is true. Now, part of my reason for believing that actually comes more, I think, from my faith than what I know about neurology, if that makes sense.

Robert J. Marks:

Okay. Well, let me ask you about that. You and I are both followers of Christ, and you have some thoughts on what scripture teaches your faith from the doctrine of resurrections. And you mentioned, I think 1 Corinthians 15.

Andrew Knox:

Yeah, that's right. So Paul is very clear that there is life beyond this one, and that if we follow Christ, then we will, after we die, be resurrected and be given a new and glorified body. The implication there too is that we remain the same person but with a new body. So that belief really requires that the mind somehow be separable from the physical substrate of the brain.

Robert J. Marks:

Right. If one is going to talk about things such as eternal life, right?

Andrew Knox:

Right. If they were one and the same, then when the brain was gone, there wouldn't be any way to preserve the mind, preserve the person. But as Christians, were told that will happen. So you're stuck saying at least that the two can be disentangled. Now, I can sympathize with someone, potentially, who says, "All of what we experience as the mind comes about because of the physical substrate of the brain, and then God creates a new brain that somehow starts at the same point, and then the mind comes out of that one." So some might argue that that's still some sort of in between position between dualism and monism or some kind of soft monism, I guess.

And I can't work out specifically which of those things is happening. I think the thing I care the most about is saying that I really don't agree with the hard sort of monism, that the mind is sort of, it's there, but it comes from the physical substrate, and it's kind of an illusion. And actually everything you do is just determined by your physical brain, and you're sort of a prisoner to that. I reject that philosophy and

teaching. I think there are all sorts of problems that come from that, and that it's not compatible with a Christian worldview.

Robert J. Marks:

One of the people that I learned from quite a bit, Andrew, was Roger Penrose, who is a naturalist, who believes that the human brain of the computer can never be creative. He wrote an entire book called The Emperor's New Mind about this, just a fascinating book. Yet, Penrose believes that there can still be a naturalistic explanation. And we're seeing this happening more and more now as people are beginning to talk about "Maybe there's something happening in the quantum realm."

The idea of my book, Non-Computable You, that I wrote was that everything that a computer does is algorithmic. And there are things that humans do, which are non-algorithmic. They can't be explained by step-by-step procedures. Penrose is actually the one where I got this idea from, even though he is a naturalist. But he looked around and he said that, "Well, the only thing in this world that I can think of that is non-algorithmic, that is still naturalistic, is quantum mechanics."

And he looked at the quantum world, which is non-algorithmic. The collapse of a wave function is totally non-algorithmic. And he says, "I think that the secret to consciousness lies there." And then there's been other people which have come across, and they talk about the idea of quantum consciousness. However, trying to review the material, I see no evidence that this quantum theory has any traction. It isn't to say that it won't. But my point is, is that being, being a theist and talking about my silo including naturalism and also outside of naturalism, I do believe that maybe quantum things may someday indeed prove or lend evidence to why we are conscious. We just don't know yet. It could be, and we might never know.

Andrew Knox:

I mean, I think if you were a naturalist, you could probably make a good argument for a monistic worldview that didn't involve quantum behavior. But I don't know either. You can argue sort of everything is a result of quantum mechanics, right?

Robert J. Marks:

Well, I guess, yeah, if you drill down deep enough, I suppose you can. But of course, I maintain that there are things which are non-algorithmic. I would talk about human emotions such as love, compassion, and the non-obvious ones are sentience, understanding, and creativity, properly defined. We have to go through and we have to define what those are before we can talk about them, but properly defined. Yeah, they're not going to be creative, they're not going to be as sentient, and they're not going to understand what they're doing. And that's my contention and the entire focus of my book.

But I believe that maybe there is something to the quantum. And then you have to ask the question... Let me ask you this, see what you think, there are organs which are grown in pigs, okay?

Andrew Knox:

Mm-hmm.

Robert J. Marks:

They do like a pancreas, because the pig is very close to humans in some biological sense that I don't understand. And they ask the person that was growing the pancreas in the pig, "Hey, could you grow a brain in the pig, a human brain?" And the answer was yes. And then the question is, if you grew a brain

in a human pig, would there be any sort of things such as consciousness or non-algorithmic things that it could do? I think that that is totally non-answerable now, I don't know, maybe you have some thoughts on it, but-

Andrew Knox:

Yeah, the closest I've come to dealing with that question, I guess... So I'm interested in epilepsy from a research standpoint, too. Actually, a lot of what I do is computer modeling of seizures.

Robert J. Marks:

Oh.

Andrew Knox:

Which ironically sort of assumes this correlation between the physical world and what people experience on a higher level brain or higher level mind function.

Robert J. Marks:

Yes.

Andrew Knox:

But anyway, in thinking about different ways to study this, I talked briefly with some folks here who do research with brain organoids.

Robert J. Marks:

What is a brain organoid?

Andrew Knox:

So you basically take certain kinds of cells from a person, and you can induce them to turn into neurons, and then you can induce them to start following typical brain development patterns, using some of the same techniques you would use to make a pig pancreas or that sort of thing. So you have little clumps of brain tissue, basically, that grow in a dish.

And so my question for them was, "Oh, cool, you have these shapes that are sort of organized layers of neurons and that sort of thing. Do they have seizures? Or can you make them have seizures?" And he kind of laughed and said, "That's a great question." It's like, "I don't really know." So when you have a structure like that, certainly they don't do normal sort of activities, and it's hard to understand whether they even have typical abnormal brain activities, common dysfunctions, like seizures or other problems.

Robert J. Marks:

Interesting.

Andrew Knox:

Those technologies are very interesting, very, very young, shall we say.

Robert J. Marks:

So what are they using these brain organoids for? Are they using it to supplement missing brain tissue or something?

Andrew Knox:

No, no. They're used mostly for research at this point to better understand brain development and the sequence of events that happens in neurons. And potentially, to understand some kinds of disorders, too.

Robert J. Marks:

In your crystal ball, do you think they will ever be used for that sort of purpose for supplementing brain tissue?

Andrew Knox:

Not soon, if ever.

Robert J. Marks:

That's a safe answer, Andrew.

Andrew Knox:

I would say, definitely not in the next five years.

Robert J. Marks:

Okay. Well, that's going to be really interesting.

Andrew Knox:

And anything beyond five years, I am really hesitant to say anything about.

Robert J. Marks:

Okay, I want to leave you with a neurological joke that I do with my kids around visitors. When my kids were like one and a half, this is totally off topic, brand-new topic, when they were about one and a half, they were just learning to talk. And I would say, "Okay, come here, Joshua. Where's your nose?" And he would point to his nose, I would say, "Good." "And where's your lips?" He would point to his lips. "And your eyes?" He'd point to the eyes, and then the ears. And then I say, Where's your medulla oblongato?"

And the reason that's so funny is medulla oblongato was just a funny word to say. It really is. But I trained him to reach over and grab the bottom of the back of his neck-

Andrew Knox:

Nice.

Robert J. Marks:

So he knew where-

Andrew Knox:

Brilliant.

Robert J. Marks:

.. so he knew where the medulla oblongato was. So my kids have grown up knowing a little bit about neurology from what I trained them as kids.

Andrew Knox:

That's great.

Robert J. Marks:

Where's your medulla... I don't think there is another organ in the body that has as funny a name as the medulla oblongato.

Andrew Knox:

I agree with you.

Robert J. Marks:

Okay. Well, Andrew, what a joy to talk to you.

Andrew Knox:

Actually, I have one other thing-

Robert J. Marks:

Sure.

Andrew Knox:

... just before we move on, that I wanted to mention. So we sort of talked about how your worldview affects how you look at some of these problems, whether you're a dualist or a monist.

Robert J. Marks:

Yes.

Andrew Knox:

I do think that despite some people's worldview, though, there's maybe an implicit assumption, or we naturally assume that people actually are dualists. So some of the most ardent monists are folks who also are arguing for one day we should be able to transfer human consciousness into a computer.

Robert J. Marks:

Oh, yes. Can we upload ourselves?

Andrew Knox:

Right. And you say, "Well, you make a different physical substrate and then move the same information over to this other system." But, again, implicit in that is something that maybe monism quite right, because how can you transfer the same person to a different thing, if it's not entirely dependent on the physical substrate? Does that make sense?

Robert J. Marks:

It does. I have a problem with it, even on a more fundamental level. I think, and again, I learned this from a noble laureate, Roger Penrose, that there are parts of the brain and parts of our mind that are non-algorithmic. If indeed that is the case, then when we upload ourselves to a computer, we can only upload the algorithmic part. We can't upload emotions. We can't upload the ability to create, or understand or be sentient, or, I believe, conscious. So I think that if you took any person and you took away all of their non-algorithmic traits, they would be pretty boring people. So I don't know.

Andrew Knox:

Certainly true.

Robert J. Marks:

I think that if we do a computer, it can't be the computers of the type we use today, it would have to at least be one of these computers that was an organoid or something like that. How you would do that, I have no idea. So what do you think? You agree?

Andrew Knox:

Oh, I don't think that's anything people will ever be able to do. Beyond that, I'm not exactly sure how to go about answering the question. We joke in neurology sometimes about the idea of brain transplants as a solution to problems.

Robert J. Marks:

Okay. Let me ask you, is that possible?

Andrew Knox:

No.

Robert J. Marks:

Okay. It isn't possible.

Andrew Knox:

Not currently. Could it ever be possible? I don't know. There are a lot of things I don't know.

Robert J. Marks:

I can see that being a way of achieving immortality, maybe.

Andrew Knox:

Yeah, right. So that raises all sorts of interesting ethical questions, if something like that even were possible. And if you could do that, maybe that would give other answers to the mind-body problem. My gut instinct is that that is never going to happen.

Robert J. Marks:

Oh, I'm just wondering the connectivity problems, I have read about people that have proposed head transplants, and of course, this is really ridiculous. I think they've done it on animals, but currently the

interface with the spine is so complicated that any time you tried to do a head transplant on a human being, that transplant recipient would be a quadriplegic. Because you couldn't connect the spinal cord. You couldn't get the rest of the body to work. So that doesn't seem to be a very good way of doing this.

Andrew Knox:

Probably not. Now, is it possible that someday you could find a way of doing that, and then give growth factors that caused things in the spine and brain to connect, and maybe you could have some 20-year rehabilitation paradigm that would let you start to use things in the way you did before? Maybe. I don't know. But I think it's unlikely.

Robert J. Marks:

It's interesting, because I maintain that nature and humans abhor a spiritual vacuum. And if you are a monist, you want to achieve immortality. Now, us as Christians, we've known about immortality for a long time. Their answer for immortality is the upload of the brain. So it's these two total different philosophies trying to achieve immortality in a different way.

Andrew Knox:

Right. I agree with you. And again, I think it shows that really all of us have some sense that there's more to us than just our physical body.

Robert J. Marks:

Yes.

Andrew Knox:

If you're a modest, you probably had to work to try to unlearn that at some point. But the part of you that has intuition that that's true, sort of still peaks out sometimes, and I think that's where a lot of the discussion about uploading yourself to a computer has come from.

Robert J. Marks:

Yes. Okay. Fascinating stuff. Andrew, this has been a great time.

Andrew Knox:

I agree.

Robert J. Marks:

I've really enjoyed chatting with you. We have been visiting with Dr. Andrew Knox. Dr. Knox is a pediatric neurologist at the University of Wisconsin School of Medicine and Public Health. Thank you, Andrew. I had a lot of fun.

Andrew Knox:

You're welcome.

Robert J. Marks:

Blessings. So until next time, be of good cheer.

Announcer:

This has been Mind Matters News with your host Robert J. Marks. 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 those of the speakers.