# A Liberating Alternative to Methodological Naturalism in Science

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## Announcer:

Greetings and welcome to Mind Matters News. The notion of cause and effect is hardly controversial. When something in the world happens, we want to know why, what caused this. Sometimes events can have many causes. To summarize John Lennox, boiling water is not only caused by the heat of the stove, but it's also caused by my desire for tea. But are both of these causes equally valid or should only direct physical causes be accepted? This purely physical view is adopted by methodological naturalists, and today we're joined by Angus Menuge and Robert Larmer to discuss Dr. Larmer's chapter on methodological naturalism in Minding the Brain. Now here's your host, Robert J. Marks.

## Robert J. Marks:

Greetings and welcome to Mind Matters News. I'm your anti-methodological naturalist host, Robert J. Marks. Mind Matters News drops a fresh new podcast every Thursday, but on the last Thursday of the month, we air a binge cast where interviews from past are merged into a single episode. We shy away from chatting with talking heads and focus on talking to those with deep expertise who actually know what they're talking about.

We are currently airing interviews with authors of chapters in the Bradley Center's new book, Minding the Brain. The book is edited by Angus Menuge, Brian Krouse, and yours truly. Info about the book is available at MindingTheBrain.org. That's MindingTheBrain.org. Hosting the interview with me today is my fellow co-editor of Minding the Brain, Dr. Angus Menuge. Angus is chair of the Philosophy Department at Concordia University. He holds a PhD in Philosophy from the University of Wisconsin. He is author of the book Agent Under Fire. He is editor of lots of books including Legitimizing Human Rights and the book Religious Liberty and the Law. With Jonathan Loose and J Moreland, Dr. Menuge co-edited the Blackwell Companion to Substance Dualism. And with Barry W. Bussey, he edited the book, The Inheritance of Human Dignity, and he's past president of the Evangelical Philosophical Society. Angus, thanks for hosting the show with me today.

## Angus Menuge:

Yeah. Thanks for having me, Bob. Appreciate it.

## Robert J. Marks:

Okay. Great. Our guest today is Robert Larmer. Dr. Larmer received his PhD in Philosophy from the University of Ottawa. He is chair of the Philosophy Department at the University of New Brunswick. He's authored many books, the most recent of which is The Legitimacy of Miracle and Dialogues on Miracle, The Legitimacy of Miracle and Dialogues on Miracle. Dr. Larmer has served on the executive boards of the Canadian Philosophical Association and the Evangelical Philosophical Society and has twice served as president of the Canadian Society for Christian Philosophers. For the book Minding the Brain, Dr. Larmer has contributed the chapter Methodological Naturalism in the Mind, and this is what we're here to talk about today. Robert, welcome.

Robert Larmer: Thank you.

## Robert J. Marks:

Okay. Great. I'll start out by asking you to define the topic of your chapter, Methodological Naturalism. These are big words, I counted them. There's 10 syllables there in two words. That's a lot of syllables per words. For those of us not privy to philosophers lingo, could you give us just a quick definition of methodological naturalism?

## **Robert Larmer:**

Yes. Methodological naturalism, sometimes known in its early days as methodological atheism says that as a matter of method in pursuing knowledge, we should act as if metaphysical naturalism is true. This amounts to insisting that for any event or phenomenon we investigate, we must always pause at a physical cause and never appeal to a non-physical cause as an explanation. In other words, even if we don't agree that metaphysical naturalism is true, we should act as if it is.

#### Robert J. Marks:

Okay. Thank you. Angus, I'll turn over the questioning to you right now.

#### Angus Menuge:

All right. Robert, that's very helpful. You've clarified the nature of methodological naturalism. Perhaps we could look at why it is that proponents of that principle say that it is a neutral principle, that it doesn't itself have any metaphysical commitments. In other words, why do they think that that's true?

#### **Robert Larmer:**

They want to say that it's metaphysically neutral in the sense that even if you act as if metaphysical naturalism is true, you don't have to actually believe it's true. And the idea is that this will allow people doing science and people investigating the physical world, that they can all get along and agree on a common method even if they don't agree on their metaphysics.

## Angus Menuge:

Right. Now, interestingly though, you argue in common with some other philosophers that in fact, methodological naturalism isn't really neutral. And how exactly in your view does methodological naturalism bias the search for truth?

## **Robert Larmer:**

Yes, I think two ways. The first way it biases the search for truth is it makes it impossible to ever recognize non-physical causes, even if they exist and are active. If for example, God actually directly created the first living cell, methodological naturalism would never permit you to deposit that as the actual cause. The second thing I think it does is people who are methodological naturalists, it seems that they're going to have to conceive God as always working indirectly instrumentally through natural causes rather than ever acting directly in the world. So if you're a thoroughgoing methodological naturalist, I don't think you could ever identify an event as a miracle, even if it was one.

## Angus Menuge:

All right. That's very interesting. And of course the focus of this chapter is the mind. And here you say that methodological naturalism implies the causal closure of the physical, which means that mental states like beliefs and desires apparently either simply don't exist, or if they do exist, they are

epiphenomenal. That is that they don't actually do anything. They have no causal influence on our actions. So can you help us understand these key concepts here? What's meant by the causal closure of the physical exactly? And why does it rule out mental causes?

## **Robert Larmer:**

Yes. Those who believe in the causal closure of the physical insist that there are never any causes that affect the physical that are outside as it were the physical. So any idea that God or an angel or an immaterial mind might do something in the world is ruled out a priori. So to claim that the physical realm is causally closed is to claim that for any physical event that has a cause, that cause will be itself physical.

Now, methodological naturalists insist that even if the physical realm is not causally closed, we must act as if it is. So what this means for the methodological naturalist is they must hold that mental events never cause anything to happen. Now, I was trying to think of an analogy here and perhaps a helpful analogy would be to think of a reflection in a mirror. The reflection is caused by the person standing before the mirror, but exerts no causal influence on the person. Likewise, if we treat the physical realm as causally closed, then mental events are caused by physical events, say brain states, but like a reflection exert no influence on brain states. So nothing that we do is actually caused by our mental states.

# Angus Menuge:

All right. Yeah, that's a very nice analogy. And at a common sense level, what does that do for our understanding of ourselves as rational agents? If that's true, what impact does that have for the way we understand ourselves?

## **Robert Larmer:**

I think it has a hugely disastrous result for our self-understanding as rational agents, because if we act as if the physical realm is causally closed, then we have to assume that any beliefs or purposes I have will be entirely dependent on my brain states, but will have no influence on what subsequently takes place. So just as my reflection cannot influence the state of my body, so my mental states cannot affect the state of my brain. What this means is that I never do anything because of a belief I hold or a purpose I have. The explanation, for example, of a parent putting a baby in a child's seat when driving will not be that the parent has a desire to keep the child safe and a belief that the car seat will help do this. So put bluntly, adopting methodological naturalism requires accepting that none of our actions have anything to do with our mental states.

## Angus Menuge:

Right. And you point out that this seems to come very close, if not all the way to self-refutation because it would apply to human acts of reasoning. In the book, for example, you give the example of a very simple piece of reasoning, A is greater than B, B is greater than C, so A is greater than C. If we applied this idea of causal closure to what's going on, when somebody thinks through that argument, what happens?

## **Robert Larmer:**

Well, I think what it means is that no one including scientists ever hold their beliefs because the beliefs are rationally justified. So to just riff on your example a little, rather than As and Bs, suppose I'm told

that porcupines are bigger than mice, a little later I'm told that mice are bigger than ants, shortly after this I find myself believing that porcupines are bigger than ants.

Now, normally we would think that I come to this last belief because of holding the first two beliefs and seeing some kind of rational relation between these first two beliefs that led me to my third belief. But if we treat the physical realm as causally closed and mental beliefs as dependent on brain states, we have to abandon this view since causal closure requires that mental states are entirely dependent on brain states and they never exert any causal influence on brain states or, and this is important, other mental states. So I never believe that two plus two equals four because I thought about two and then thought about adding another two and then thought about four. Mental states just as one reflection can't affect another person's reflection. So one mental state can't affect another mental state.

# Angus Menuge:

Right. And so this of course will affect agency in general, but I guess even our understanding of the rationality of science because it seems that advocates of methodological naturalism try to justify their position by saying that, well, it's the rational approach, but if what you are saying is correct, it would seem that methodological naturalism undermines the very idea of scientific rationality. What would you say to that?

## **Robert Larmer:**

I would agree entirely. If methodological naturalism means as it does, treating the physical realm is causally closed, then that commits the methodological naturalist to saying that we never ever hold a belief because of the reasons for that belief.

## Robert J. Marks:

Yeah. If I could chime in here, it seems that you're saying that methodological naturalism has confined itself to a silo and everything that they observe must fit within this silo. I think the people that are not methodological naturalists that believe that things exist outside of the silo are much more open-minded. And then Angus mentioned the idea of self-refuting. It seems to me, as I understand it, now I'm coming at this as a mathematician engineer, but methodological naturalism cannot be used to prove or even provide evidence for methodological naturalism. It's kind of a philosophy that's sitting out there as a singularity without any support from its own claims. Do you think that that's true?

## Robert Larmer:

I think so. Analogy I heard years ago was that suppose you come and on the sand on a beach, you find some pattern that says Buy Microsoft. Now, if you were totally convinced that that was only produced by wind and waves and had no link to rational reasoning, would it be smart to buy Microsoft? So the methodological naturalist says, we must confine our explanations to non-rational physical causes. Well, if we do that, then there's no reason to think that we can trust our thinking processes.

## Robert J. Marks:

Actually, that's kind of funny. No matter where I go, I cannot escape advertising. I even went to a gas station the other day and I was pumping gas, and then the gas pumps started to try to sell me stuff. They put a little video and some audio out there and I said, "My gosh, I can't escape advertising." So if I go on the beach and I see buy Microsoft, I think now more than ever, I would think, well, maybe Microsoft figured out a way to put that there. But your point's well taken. It could not have occurred by natural processes.

## Angus Menuge:

All right. Very good. That's a helpful explanation, the main concepts. But still we want to understand why it is that methodological naturalism has been so popular. And the main part of your chapter takes a look at the common justifications that are out there in the literature. Some of them seem quite weak and some of them perhaps are more serious. So maybe let's take a look at these. First of all, you have those people like Barbara Forrest who'll say that, "Oh, well, if it's a non-natural cause, it's unknowable by scientific inquiry. And oh, and by the way, if we did have evidence of some non-natural cause, well, that would just show that it was a natural cause after all." In other words, having evidence and being natural just seemed to go together on her view. Well, you disagree though. What's wrong with that sort of argument in your view?

## **Robert Larmer:**

I think her article, which is pretty well known, I think that in its attempt to justify methodological naturalism, I think it commits at least two logical fallacies. First, it assumes the very thing it needs to show, namely that a non-natural cause cannot be known by scientific inquiry. That's an argument that has to be made that she never makes. The second point, second fallacy is it empties the term physical of all content by insisting that God, that if God the creator of the physical universe exists, we would have to claim that God is physical. And again, she provides no argument for such a claim and such a claim would seem to be at odds with Big Bang cosmology, which says that if there was a cause of the universe, it had to be non-physical since it's only at the beginning of the universe that anything physical begins to exist.

#### Angus Menuge:

Yeah. Right. That's a great example because of course there couldn't be a physical cause of everything that is physical. But now in the other caps, there are some who think that in principle, methodological naturalism is a necessary condition for science. And so they reject nonphysical causes in principle because they claim that methodological naturalism is what's called a demarcation criterion. That is it's a line between science and non-science that we just have to accept. Why do you think that's mistaken?

## **Robert Larmer:**

Well, I think philosophers of science have been pretty clear that attempts to get a nice clear demarcation criterion haven't been successful. So there's been many attempts to provide clear and strict dividing lines between science and non-science. But these typically fail. And in my view, methodological naturalism seems the latest attempt with people simply insisting that science requires the assumption that the physical realm is causally enclosed. Now, I think the problem with that assumption is that if we take science to be a search for the causes of phenomena or the search for truth, then methodological naturalism puts science in a straight jacket where it's incapable of ever recognizing non-physical causes even if they exist. So this means that arguably in some cases, scientific explanation will amount to insisting on a naturalistic explanation no matter how inadequate that explanation may be. And so science then becomes not primarily a search for truth, but a search for the least implausible naturalistic explanation that we can give.

## Angus Menuge:

Right. That's very good. I mean, it's like a race. How significant is it that you win? It all depends on which runners are allowed, right? So you might have an inference to the best explanation, but if only the weak explanations are allowed in principle, the best explanation turns out to be the best of a bad lot and not the best explanation of all. Yeah, that's a great point. The other thing that I always hear is that scientists

and philosophers will say, "Well, look, if you do allow non-physical causes because they are free acts of agency, you never know when they're coming and you would end up with a universe so chaotic and unpredictable that science would be impossible." What's really wrong with that argument? At first sight it might seem quite plausible. What's your response?

## **Robert Larmer:**

Paul Draper, who's an atheist, has some nice work on this, but I think the primary fault with that argument is either God exists or God doesn't, we have found ourselves able to investigate the universe. So whether or not the physical universe is in fact chaotic is not determined by the method one adopts. The universe either is chaotic or not chaotic. Your method is not going to make the universe be different. We already know that the physical universe is not chaotic. So if in fact God does exist, we already know he does not simply, to use Robert Pinnock's kind of polemical phrase, simply zap anything into or out of existence in any situation. So I think the error underlying that kind of attempt at justification of methodological naturalism is just the assumption that God will act in an entirely arbitrary, non-rational way. We already have good evidence that if God does exist, he's not acting in that way.

# Angus Menuge:

Right. Very good. Because after all, the laws of nature themselves are rational. So we've got evidence that if there is a being behind the universe, it would be a rational one. What about those though who think that allowing non-physical causes is a science stopper? Because we can just say, well, somebody made this choice and that's all there is to it. And one thinks back to Aristotelians who thought it's sufficient to explain why a body returns to the earth, well, that it had the goal of finding its natural resting place and then along comes Francis Bacon to kind of complain, "Well, that deters you from finding out exactly what the laws of motion are that govern the behavior of that body." So that might happen, I guess. But you argue at least that there's no reason to think that inferring a non-physical cause has to be a science stopper. Why is that?

## **Robert Larmer:**

Yeah, I'll mention several points, but just before I do that, probably you're aware, Angus, of Edward Feser's recent book in philosophy of science, which he titles Aristotle's Revenge. But I'll leave that aside though. It's an excellent book, but I think several points need to be made concerning this science stopper objections. First, all explanation must ultimately stop somewhere on pain of infinite regress. So we have scientists talking about the four basic forces and they'd like maybe to whittle it down to one, but even if you whittle it down to one, then if you explain everything in terms of one fundamental force, you've stopped your explanation somewhere. So theoretically all explanation stops somewhere.

Second, if an explanation in terms of an immaterial cause is given, it can be challenged just like any other explanation. If I look at something and say, "Look, I think that the cause of that was a supernatural agent," I can be challenged. And if somebody puts forward a naturalistic explanation that works well, then Occam's Razor, as William Dembski has pointed out, will do the job of selecting the naturalistic explanation on the basis of it being more simple. So giving an explanation in terms of God's agency doesn't mean that it can't be challenged.

And third, there's no reason to think that scientists are likely to become lazy just by becoming open to recognizing non-physical causes. Historically, that hasn't been the case. Robert Boyle, the great father of chemistry, took seriously miracles, but that didn't mean that he didn't make great advances in chemistry.

## Angus Menuge:

Yeah, that's a good example. And the same thing with the discovery that DNA is like a language. It doesn't at all stop people from investigating how that language works. On the contrary, that seems to be the main area of research, but oddly it seems to point to design.

## **Robert Larmer:**

And a fourth and final point I'd make here is that in practice, some explanations can be so compelling that there exists no reason to challenge them. Just as no one is likely to challenge the explanation that the pumping of the heart helps explain the circulation of the blood. So I would suggest that it makes no sense to challenge the explanation that when I type up a manuscript that the manuscript is due to my mental state of desiring to provide answers to whatever question I'm investigating.

#### Angus Menuge:

Right. Very good. So it's many philosophers have kind of admitted this now that the in principle objections, people like Eliot Sober and some of the best philosophers of science don't want to say that in principle you have to use methodological naturalism. Rather they give this kind of weaker argument that, well, it's inductively justified because it's been so successful in scientific practice. And of course since that's a weaker claim, it's a little bit harder to refute. But you argue interestingly that methodological naturalism isn't really necessary. Why is that? What's the alternative?

#### **Robert Larmer:**

Yeah, it's interesting. Martin Boudreau, who is a very determined critic of intelligent design, he makes precisely that point. He says, "If you're going to argue for methodological naturalism, don't do it in the way that it's been typically done, rather try to justify it on an inductive basis." But I would argue that any presumed work that methodological naturalism does in helping scientific investigation can just as well be done by employing other rational principles.

For example, Occam's Razor the principle of not multiplying entities needlessly, that's going to allow us to choose a physical explanation over a non-physical explanation if in fact the physical explanation does just a good a job as the non-physical explanation. For example, I don't need methodological naturalism in order to come to the conclusion that ocean tides don't need a non-physical explanation for their occurrence. And what I find interesting is it seems that methodological naturalism is only invoked when you want to attack a certain position and you want to label it as unscientific. And of course, in our society, labeling something as unscientific is to say, well, it doesn't have as much right to be taken seriously. So as Larry Laudan mentions, things like methodological naturalism. You've got all sorts of well-established explanatory criteria for scientific investigation, for scientific explanation.

## Angus Menuge:

Very good. And you also point out that something that is very important here is this fundamental distinction between different kinds of science, nomological science that's looking for regularities, and historical science, which is looking at singularities, things that happened once. What's the distinction exactly between those two kinds of science and why is it relevant to methodological naturalism?

Robert Larmer:

Yes, nominological science deals with explaining regularities found within the physical realm. For example, ocean tides or cycles of seasonal change. Explanation in terms of laws works very well in explaining such regularities. On the other hand, historical science has to do with explaining non-regular events in nature. For example, we don't regularly experience life coming from non-life. And in areas of historical science, explanation works best when we employ abduction, namely that we work in inferring the best explanation by considering different hypotheses.

# Angus Menuge:

All right. And so your point is that even if methodological naturalism has a good track record in anomological science for finding laws, it can be very reasonably and seriously challenged in historical science. Why is that and what would be examples where it would be wildly implausible not to consider a non-physical cause?

# **Robert Larmer:**

Yes. The fact that explanations in terms of physical causes has a good track record in explaining regularities within science should not and does not automatically justify thinking it's going to have a good record in explaining non-regular events. So if you want an analogy, the fact that it's easy to catch pigeons doesn't mean that it's going to be easy to catch foxes. So the inductive success we've had in nominological science doesn't automatically, in terms of natural causes, doesn't automatically transfer over to explaining historical events such as the origin of the first cell or major non-regular events such as the Cambrian explosion.

# Angus Menuge:

And in particular, you want to say that this failure of methodological naturalism is especially clear in the case of consciousness, the emergence of consciousness and also agency. Why is that and what's at stake here?

# Robert Larmer:

Well, what's telling is that even materialistic philosophers admit what they call the hard problem of consciousness and the difficulty if not impossibility, of explaining in a physical terms. Thomas Nagel, who is himself an atheist and very much he's very honest, he says, "I don't want God to exist." But he sees the problem and he writes, here's a quote from him, "Conscious subjects and their mental lives are inescapable components of reality, not describable by the physical sciences." So there you have a hard-nosed atheist, and he's not alone in saying, we have a problem in trying to talk about consciousness as a physical phenomenon. Just for example, and you would be very familiar with this as a very fine philosopher of mind yourself, but for example, physical objects can't be true or false. Chairs aren't true or false, but mental states such as beliefs can be true or false.

## Angus Menuge:

Right. Very good. So there's all kinds of properties, subjectivity, intentionality that don't seem to be physical properties or to be predicted by them. And circling back to what we had discussed before, why in this area in particular does the price of methodological naturalism seem just too high for anybody to pay?

**Robert Larmer:** 

Well, as we've already said, what's at stake is whether we are able to engage in rational investigation of reality. When you ask a scientist why he or she believes something, they're going to talk about evidence interpreted according to methods of logic say. So given that non-rational physical causes have no interest in obeying the rules of logic or the rules of inference, insisting on a purely physical account of consciousness undermines any kind of rationality even to try and justify that position.

## Angus Menuge:

So even if we do have reasons, they have got nothing to do with the conclusions that we draw, and that seems to be a dreadful place to end up. As a kind of a last-ditch attempt, some will say that, "Look, scientists just don't have any viable practical alternative to methodological naturalism." They'll say, "Look, if it ain't broke, don't fix it. This is what we've done and that's all there is to it. We can't see any other way." But you think, no, that's not actually correct. What is the alternative then? We talked about this a little bit before, but could you develop that a bit?

# Robert Larmer:

Well, in my view, explanations should be based on how well they explain rather than being prescribed in advance, as necessarily being of a certain type. I want the freedom to go where the evidence leads. I don't want to have to first subscribe to a method that says no matter what the evidence is, here's what you have to come up with. So what is needed is not some a priori commitment to methodological naturalism, but a willingness to go where disciplined investigation of publicly available evidence combined with loyalty to fundamental explanatory principles leads.

# Angus Menuge:

Yeah, that's very helpful. And I am thinking too, if we move upper level to the metaphysical or sometimes called philosophical naturalists, what they claim is that ultimately their philosophy is one that's supported by science, and that might seem somewhat plausible perhaps, but they also assume methodological naturalism. And here I think following Stephen Dilley, you see that there's a problem. There's a problem you claim in saying that science supports naturalism, but you need to assume methodological naturalism. Just what's gone wrong here in your view?

## **Robert Larmer:**

Yeah. The metaphysical naturalist very often attempts to justify the metaphysical naturalism on the basis that there's no evidence for entities other than the physical. And then using Occam's Razor say, "Well, don't multiply entities needlessly." Now the problem with adopting methodological naturalism is you've taken on a method that guarantees that even if nonphysical causes exist, they can never be recognized. So adopting methodological naturalism guarantees you're never going to find any evidence that would falsify metaphysical naturalism. In other words, if I'm saying, well, I adopt metaphysical naturalism because there's no evidence against it, and then I insist on adopting a method that says that guarantees there can never be any evidence found against it, then I'm begging the question, I'm assuming the very thing I need to prove.

## Angus Menuge:

Right. That's very good. It's a bit like saying that there aren't any small fish because they're never found in nets with large holes.

## **Robert Larmer:**

#### Yes. That's very nice.

## Angus Menuge:

Well, yeah. So that if we want to claim the evidence means something, then the method of gathering that evidence must be allowed to count both for and against the claim. And you are saying that they have basically set it up so they'd only ever notice the evidence that was for their claim.

## **Robert Larmer:**

Yes. Sorry, metaphysical naturalists want to claim that their justification for being metaphysical naturalists is very scientific in that it's the best account of reality, but they have guaranteed, if they adopt methodological naturalism, they've guaranteed that there's nothing that can challenge their hypothesis.

#### Angus Menuge:

Yeah, that's very good. Well, let's try and summarize the main point. This is a wonderful chapter and I'm so happy that it occurs earlier in the book because it's pivotal to understanding that the evidence that's presented in many other chapters. What you say at the end is that methodological naturalism is at best superfluous, i.e. we don't need it. And at worst, it's an outright obstruction to discovering the truth. Can you kind of help to tie things together and reinforce our understanding of this main takeaway?

#### **Robert Larmer:**

Well, when I say at best it's superfluous, I think actually all the real work done in science is done without methodological naturalism. It seems to me that methodological naturalism is only brought in as a rhetorical device to challenge say something like intelligent design being taken seriously or to challenge accounts of the mind that are non-physical. So I think that it's not needed. At worst, I think it places a straitjacket on our explanatory options and guarantees that no matter where the evidence will lead, in reality, we're going to give a naturalistic explanation no matter how bad. And I guess just what I'd like to say here as we're getting close to the end, it seems to me that there's nothing in science if we consider science to be a search for natural causes, there's nothing in science that prevents science from saying or coming to the conclusion that in searching for natural causes, we come to events which do not plausibly have a natural cause.

So it seems to me we've already done that in at least one instance, namely Big Bang cosmology. Our best cosmology takes us back to if there's a cause of the Big Bang, it can't be a physical cause. So our search for natural causes leads us right back to an absolute beginning where the cause would have to be non-physical. Similarly, if we look at the origin of life, I think the more we know, the harder it is to give an account in purely naturalist terms. In terms of what this book talks about as consciousness, I think that's true. We have the hard problem of consciousness. You've got atheists who say, "Look, we don't have any account. And if you want to look at empirical data, we've come to take much more seriously near, near-death experiences, which are very, very difficult to explain in terms of natural causes." So other than some kind of arbitrary insistence that we must explain things in terms of natural causes that we must acknowledge.

## Angus Menuge:

And really this just seems to be a more open-minded approach. Would you think that an alternative to methodological naturalism might be methodological neutralism or something like that, which kind of

indicates that yes, there are certain explanatory virtues that we want? Explanations need to be consistent and coherent. They need to have a wide scope and so forth, but they're neutral at least as to the kind of cause that you might ultimately infer, there it seems like all bets should be off. We should simply say that, well, that should be determined by the best explanation of the data that we find, and it shouldn't be determined by what we hope to find. Right. So do you have a preferred term for an alternative to methodological naturalism?

# Robert Larmer:

Well, I'm not sure I have a preferred term. If I did have one, maybe methodological pluralism. But I think many people, many scientists would say that different areas of science employ different methods. And taking us back to the demarcation problem that we discussed earlier, I'm not surprised that the demarcation problem of trying to have some kind of rigid distinction between science and non-science that that fails because it seems to me that good reasoning is good reasoning, whether we're doing quantum mechanics or we're doing medieval history.

We do have pretty good principles by which to evaluate evidence, and we have a pretty good handle on what constitutes fallacious reasoning. So it does seem to me that if we simply apply that, if we take seriously those things we learn in critical thinking 101 and seek to apply those methods of rational thought to the data we gather, whether that data, as I say, be in history or in archeology or in physics or in biology, that we will find good methods and that we will have a better chance of coming to recognize what the true causes of things are than if we in advance place some kind of arbitrary restriction that all explanation must be in terms of physical causes.

## Angus Menuge:

Because you point out in the chapter that at the end of the day, as many scholars have said, Larry Laudan and others, it's much less important what we call science. That's just a verbal matter than what we allow is simply a claim for which there is good evidence, right?

## **Robert Larmer:**

Yes. If something is true, it doesn't matter whether we call it scientific or non-scientific, the question is, is it in fact true? I think what happens is very often in our culture, there's this tendency to associate the term scientific with true and unscientific with false. But that seems to me unfortunate. A good argument is a good argument independently of whether we call it scientific or unscientific. So let us be interested in how good an argument is rather than in whether we're going to arbitrarily call it scientific or unscientific.

## Angus Menuge:

Right. That's excellent, and I think that's an excellent place for me to stop. I think I've asked my questions.

## Robert J. Marks:

Okay. Thank you, Angus. Thank you, Robert. I've been sitting here learning a lot listening to you guys. And again, as an outside person who isn't a trained philosopher, more in the area of mathematics and engineering, it seems to me that methodological naturalism is kind of a subset of, say a Christian worldview, a theistic worldview. Methodological naturalism, and you got to tell me if I'm being naive here, simplifying too much, methodological naturalism asks how nature performed this task. Whereas from a Christian perspective, maybe even a theist perspective, it is the question of not whether or God did it, but how he did it. He could have done, he could have used naturalistic sort of properties in order to achieve a goal. And certainly we've polished this in history as we came from things like spontaneous generation to theories of germs and Darwin's idea that the cell was a big gob of goo as opposed to what we know now, that it's more like the complexity of a Boeing 737. But again, it seems to me that methodological naturalism is a subset of the general worldview, not the general worldview, but the Christian worldview, which asks, again, not whether God did it, but how God did it. Did he use the naturalistic properties, or as Robert has written about, that was it a miracle? So those are the questions we asked. So it seems to me from 5,000 feet, that one is a subset of another. What do you think? Am I off base here? Am I being naive, or is this a viable point of view?

#### **Robert Larmer:**

Well, I think the initial attraction of methodological naturalism, and indeed the term was coined by a Christian philosopher, Paul de Vries at Wheaton, though the term had also earlier been used by a personalist philosopher, Edgar Brightman, I believe. But the initial idea was, well, can't we all just get along? Can't we go into the lab, and given that God often does things instrumentally through secondary natural causes, those secondary natural causes may depend upon God for their existence, but can't we at the level of science just get along? So it doesn't matter if you're an atheist or a theist or an agnostic, we'll just adopt this neutral practice. That was its attraction.

The problem is that it's not really neutral. If science is in a sense imperialistic in that anything in the physical world that happens, science should be open or able to investigate it. And if you prescribe that science must always give a natural explanation, that is to say from the theist viewpoint and explanation in terms of secondary causes, you are, as it were in advance, committing God to working in a certain way. Now, God could maybe do it solely through natural causes and never by direct intervention, but I want to be open to going where the evidence leads. So if the evidence suggests that on occasion God doesn't work instrumentally through secondary causes, but primarily directly through intervening and producing something nature would not otherwise produce, I want to be able to recognize that.

## Robert J. Marks:

Okay. Understood. Understood. I think that that clarifies my position a little bit, so.

## Angus Menuge:

Yeah. Another approach that some might have who are less dogmatic is to say that in areas of science where methodological naturalism has had good results, then perhaps it should be taken to be a rule of thumb. But that's very different from an infallible rule that under no circumstances whatsoever would you question or abandon. A rule of thumb just means, well, it'll be your default. And I think that, as Robert was saying toward the end of the interview with me, I mean, there's nothing wrong with the search for natural causes. There's nothing wrong with trying to see if there is one. What's wrong is assuming in advance there can't be anything other than a natural cause. So it's really the dogmatism with which the principle is held is the problem. If it was viewed as a rule of thumb or a defeasible guide in areas where it seems to have done well in the past, I think people could, to some degree make their peace with it. But it hasn't worked that way unfortunately. It's been taken to be the gold standard.

## Robert Larmer:

But I would say I think Angus is right in that. But I would say that I don't think it's needed even as a rule of thumb. For example, I don't think we find Robert Boyle talking about methodological naturalism. I

think he is just searching for what he takes to be the best explanation. And if we can explain things in terms of natural causes, then we shouldn't complicate matters. But I don't think that scientists typically say, okay, "I must adopt methodological naturalism because otherwise I would have to consider all these hypotheses." I think they just go about their business and say, "Look, what does Occam's Razor say? What does the method of competing hypothesis say?" So yes, if you want to have it as a tentative rule of thumb, I suppose that's okay, but I don't think it's needed. I think we can perfectly get on with our work without ever having to bring it into the discussion.

# Angus Menuge:

Yeah. And I think that's true when you look back to people like Kepler, for example, his understanding of a law of nature was actually part of God's providential plan. So he had an overtly design-based understanding of the laws of nature themselves, and that didn't stop him from making some great discoveries. So I think, yeah, the fact that there are great scientists who methodological naturalism never occurred to, seems to count against what I had just suggested. That's very good.

## **Robert Larmer:**

I think also, that a problem with methodological naturalism once you give it a lot of credence is design is not regarded in terms of natural causes. So you have people in BioLogos who are theists, and they will say, "Well, we perhaps believe in design, but design cannot be empirically detected. Design must be asserted by faith." So it seems to me methodological naturalism, it's going to have big implications, not simply for science, but for natural theology.

## Robert J. Marks:

But haven't you already said that intelligent design is motivated and substantiated a lot by abductive reasoning?

## **Robert Larmer:**

I have, but it's very often dismissed as it's not scientific because it invokes design and therefore runs counter to methodological naturalism.

## Robert J. Marks:

Ah, okay. Oh, that's strange. Hey, thank you gentlemen. I have learned a heck of a lot. We've been talking to Dr. Robert Larmer about methodological naturalism, and this is the topic of his chapter in the book, Minding the Brain. For more information about the book and Dr. Larmer's chapter, visit MindingTheBrain.org. That's MindingTheBrain.org. So until next time we meet on Mind Matters News, be of good cheer.

## Announcer:

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