

BOOKS AND IDEAS PODCAST

with Ginger Campbell, MD

Episode #30

**Interview with Tom Clark from the Center for Naturalism, Author of
*Encountering Naturalism: A Worldview and Its Uses***

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INTRODUCTION

This is [Episode 30 of Books and Ideas](#), and I'm your host, Dr. Ginger Campbell. Before I tell you about today's guest I want to thank you for staying subscribed during my summer hiatus. I'm glad to be back, and I intend to continue putting out *Books and Ideas* on a monthly basis.

But I need your help. This podcast has great guests, but it is not reaching as many people as the *Brain Science Podcast*. If you have any ideas about how to get the word out, send me email at docartemis@gmail.com.

If you are new to *Books and Ideas* I want to remind you that show notes and complete episode transcripts are available at booksandideas.com. We also have a new [Fan Page](#) on Facebook.

Now about today's episode. Today's guest is [Tom Clark](#), the author of [Encountering Naturalism: A Worldview and Its Uses](#). I first encountered Tom's writing about two years ago when I reviewed Cris Evatt's book, [The Myth of Free Will](#), for [Episode 12](#). We finally got together last month to record this interview.

We discuss naturalism as a philosophy, or worldview, and we talk about the book, [*Did My Neurons Make Me Do It?*](#), which I discussed on the *Brain Science Podcast* in [Episode 53](#). In fact, Episode 62 of the *Brain Science Podcast* will be a follow-up interview with [Dr. Warren Brown](#), co-author of *Did My Neurons Make Me Do It?*

Meanwhile, let's listen to the interview with Tom Clark. I will be back with a few brief announcements after the interview.

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INTERVIEW

Campbell: My guest today is Tom Clark, from the [Center for Naturalism](#) and the author of *Encountering Naturalism: A Worldview and Its Uses*. Tom, I'm really glad to have you on *Books and Ideas* today.

Clark: It's a pleasure to be here, Ginger. I admire what you're doing.

Campbell: Thanks. Could you start out, Tom, by just telling us a little bit about yourself?

Clark: Let's see, who am I? I got interested in naturalism from an exposure to [Buddhism](#) through [Alan Watts](#), and discovered that Buddhism had a lot in common with [B.F. Skinner's behaviorism](#), in that they both denied the sort of insubstantial freely willing self.

And then I discovered that [Daniel Dennett](#) at Tufts was doing research in philosophy of mind which also was questioning this basic idea about the self. I wrote a little monograph that Dennett looked at, called "Buddhism, Behaviorism, and the Myth of the Autonomous Self." And then I did some work with him at Tufts. And that's the background of how I got interested in naturalism.

Over the years that has deepened. I have worked in an addictions research company for awhile, looking at addiction from a naturalistic standpoint. And then about five years ago I started the Center for Naturalism to really explore naturalism as a worldview based in science. So, that gives you some idea of where I'm coming from.

Campbell: Do you do the Center for Naturalism full-time?

Clark: Yes. That is a full-time proposition. We raise money, and we have a board of directors, an advisory board, online communities, and that sort of thing.

Campbell: I was going to say, if you were doing that part-time I don't know how you could possibly be doing it, because it's a very, very extensive website. And I'm going to link to it in the show notes.

Clark: I appreciate that. There are two websites: the [Center for Naturalism](#) site, and then [naturalism.org](#), which is where most of the new material gets added.

Campbell: So, why don't we jump on in and let you just start out by telling us what is naturalism.

Clark: Naturalism, the way I think about it and the way many folks in the secular and humanist communities think about it, is essentially a worldview. It's a way of looking at the biggest picture of who we are and what our world is like.

It says that we are all natural creatures, that nature is what there is, and that nature is enough: That we don't need anything supernatural to describe ourselves, nor do we need anything supernatural in order to lead meaningful, moral, and effective lives.

So, it's really a soup-to-nuts worldview that is based mostly in science, in that science we take to be our most reliable way of knowing what exists. And that, of course, has developed over the last 350 years.

And naturalism is nothing new. There have been many naturalistic philosophers, starting with the Greeks. But it's with the rise of science that naturalism has, I think, come to the fore as a plausible idea of what exists and who we are—plausible because it's based in our most reliable way of knowing.

Naturalism simply says that we are fully part of the natural world. Human beings don't have souls or anything immaterial about them, and that's fine. And we can reconfigure our sense of self and the human agency to conform with what naturalism says, and still get along just fine.

Campbell: Talking about what you said about your own background, I also have come to where I am now from being immersed in Buddhism. And what led me, actually, to Western philosophy and then studying consciousness, was that Buddhism in and of itself didn't seem to give me any way to connect with modern science.

I'm not talking about the Dalai Lama—he, of course, does—but I'm talking about most Buddhists. So, I kind of felt like I had a place missing, and ended up going in a similar direction to the one you went in. But can you say something about the relationship between naturalism and science?

Clark: I think the relationship, as I see it, is epistemological, in that naturalism as a worldview has to have an epistemology—it has to decide what's real, and how we know what is in the world. And science is that epistemology; or more broadly, an intersubjective way of deciding what's true. We need public evidence, and science, of course, is the paradigm example of a method that sticks with publicly observable evidence.

So, naturalism follows from that, because if we stick with publically observable evidence, what we're led to believe is that nature is what there is—what science shows to exist. And then that provides the sort of global metaphysical outlook that is worldview naturalism.

Campbell: For the sake of those of us who aren't philosophers, what's epistemology?

Clark: [Epistemology](#) is the study of how we know what we know. So, when I say an epistemic question, it's a question about knowledge—how we know what's true; why we suppose our beliefs are reliable. That seems to be the first question you have to deal with before you can get a worldview going.

And it's why naturalism, since it's based on science, differs from other world views that are not. [Theism](#), [New Age philosophies](#), and the [paranormal](#) stuff often are based in non [empirical](#) modes of justifying beliefs which I think are unreliable. But that's the basic divide. And it starts with epistemology: How do you know what's true? How do you know what's real?

It's a tough question. It can get very involved. But I think there's a fairly straightforward answer as to why it's rational to stick with science and other kinds of intersubjective evidence—in other words, evidence that's available to all subjects, all persons, in a public domain. Why? Well, that kind of evidence gives us very reliable beliefs about the world—beliefs that are justified by making us good predictors of events.

Now, if you're a non empiricist your epistemology might depend on your first-person intuitions, on your subjective feelings, on revelation, or on, say, religious authority. None of those are as reliable as beliefs based on public evidence. I think that's demonstrably true. If you want to understand the world and how it

works, and be able to make reliable predictions about things, you stick with public evidence—with science and other intersubjective ways of knowing.

So, that's why it seems to me, if you're interested in the truth about things, it's rational to stick with science. People who don't, I think, are selling themselves short by not having a reliable platform on which to hold beliefs about the world.

Campbell: That makes sense to me. Getting back to the history of the fact that naturalism goes back a long time, then would the original Greek naturalists have been using a similar method within the limits of their time?

Clark: Yes, I would say that's true. They were certainly not in thrall to the local religions—the [polytheism](#) of the time. They stuck pretty much with the evidence of their senses. And [Thales](#) and [Democritus](#), and others around that period—which of course stretched over a few hundred years—were all empiricists, as you say, as well as they could be.

They didn't have the tools that we have now, but they were essentially empiricists about how they justified their beliefs. They didn't put stock in unobservable deities, for instance. That's what I suggest is probably how they arrived at their beliefs. I'm not well versed in their philosophy, but that's what I suspect. Certainly that's how modern science works, as it has developed since the Renaissance and the Enlightenment.

Campbell: So, is naturalism the same thing as [materialism](#)?

Clark: No. I would say naturalism is a more accurate descriptor of at least the worldview that I'm trying to promote, in that naturalists are not necessarily committed to a materialist [ontology](#). What they're committed to, as we have discussed, is a scientific method as a reliable grounds for belief.

Now, if science discovered that there was a categorically non material entity or process, then we wouldn't be materialists, would we? At least not in the ordinary sense. So, it seems to me that naturalism is not committed to materialism. It's a broader outlook.

As I think you know, [David Chalmers](#), a philosopher of mind, calls himself a naturalistic dualist, because he thinks that it's very likely the case that there are categorically non physical things out there in the world that are connected to physical things by psychophysical laws, as he puts it. There are probably a few others out there who are naturalistic dualists. He wouldn't call himself a materialist. And just to hedge my bets, I wouldn't either.

Campbell: Right. The problem with materialism is that it's too easy for it to be attacked, because it sounds like you're ignoring things like $E=mc^2$.

Clark: Yes. And also of course it has the connotations of being materialistic, of being crass, of ignoring the higher side of human nature, shall we say—our higher capacities. And certainly a naturalist would not want to be accused of that.

Campbell: I just bring that up because in looking at the potential for attacks on neuroscience I've been paying attention to what the [Discovery Institute](#) is up to with their promotion of so-called non materialistic neuroscience. They look like they're standing poised to really attack what they're calling materialism—at least in neuroscience—as if it were some kind of evil thing.

Clark: Yes, exactly. I've been following that dispute. It very much speaks to the point that we've been dealing with right here. They think that science has a materialistic bias. So, they think that folks like myself, or mainstream scientists and neurophilosophers, for instance, are in thrall to a knee-jerk blind materialism—which isn't the case. Scientists do what they do based on how they investigate phenomena.

And if it should come to light that there's something categorically non physical out there, so be it. What scientists and philosophers want to get at is the truth about things. So, if we agree on the methods, then there really shouldn't be any dispute between these folks who are worried about materialism and mainstream scientists. We should all be on board about what the methods of science and investigating the world are—the most reliable methods.

Campbell: Things like having something that can be reproduced between different people, and testable.

Clark: Exactly. Right. Publicly observable evidence, replicable evidence; good explanations which are transparent, they're coherent, they're unifying, they're verifiable, and they're simple. Those are some of the basic criteria of good explanations that get us reliable knowledge. No one disagrees about that, so I'm a little puzzled as to why these folks, who claim that science is being dogmatically materialist, are making this charge; because it simply isn't the case.

Science is not wedded to materialism, or any particular ontology. As you started off saying, it's a method. And naturalism accepts what that method reveals about the world. If it revealed something non physical or immaterial in some sense, we would be there, because it would be the case according to our best modes of knowing.

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Ironically, I don't watch the TV show, [True Blood](#), because my husband and I can't stand the bad southern accents. In contrast, the audiobook narrator, [Johanna Parker](#), has a perfect accent, in my opinion.

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Campbell: Tom, I first discovered your work through the piece that you wrote for the book, [The Myth of Free Will](#), which I discussed back in [Episode 12](#), which is two years ago now. So, I wanted to take some time to talk about what is naturalism's take on free will? That seems like a really important area.

Clark: Well, we have to define very carefully what we mean by free will in order not to confuse people. But, there are two major definitions of free will out there. And naturalism denies that we have one variety of free will, and is perfectly happy with another variety.

The kind of free will that naturalism denies is the supernatural free will of the soul—the idea that there is something about us which is uncaused, but gets to cause in turn. Since we're fully physical beings, it's very likely the case that as we make decisions, as we make choices, as we decide what to do, the brain—being a physical organ—is operating according to causal laws.

So, even though we might experience ourselves as some kind of mental agent, or soul, what naturalism says—based in science—is there's no such thing as that. We are fully physical creatures, therefore we don't have a kind of free will that could somehow reach down into causality and intervene to make things turn out differently. And what this means concretely is that in any given situation—for

instance, the situation we're in right now—things happen one way according to causal laws, and according to what was the case at the start of whatever we're looking at.

So, there's a cause and effect pattern that unfolds, more or less deterministically, that can explain human behavior. So, we don't have free will in the sense of supposing that in any given situation, given the exact factors that were in play—including our internal states and our environment—that things could have turned out otherwise.

So, that's a kind of contra-causal free will that naturalism denies. That's generally what I call it in my writings. And I know [Patricia Churchland](#)—who you've interviewed—talked about it that way, too. And she agrees—and most philosophers and scientists agree now—that we don't have this kind of contra-causal ability to choose things independent of the cause and effect flow that we're all part of.

But the kind of freedom that we do have—I don't like to call it free will because it tends to confuse people—is freedom of action. Normally we're free to do what we want to do, and no one is telling us how to live our lives. So, we have freedom of voluntary choice, even though it's very likely that we're fully caused in what we choose.

So, it's important to distinguish those two kinds of free will—or freedom—and to remind people that naturalism is not denying the freedom of voluntary action that's the basis for political freedom and for our personal freedoms—the freedom to act according to what I want to do as opposed to how someone else might want me to behave.

Campbell: How does this relate to the question of personal responsibility? How do we hold people responsible if their actions are fully determined? That seems to be a main concern of people.

Clark: Yes, that is a very big concern, because people have traditionally thought that the basis for responsibility has to be that we're ultimately in charge of ourselves—that we're ultimately responsible. But, of course, we're not ultimately responsible, in that we don't have contra-causal free will. Our actions come out of a cause and effect nexus that we're part of.

So, when it comes to responsibility, people sort of wonder, 'Well, if I was determined to do what I did, then how can you hold me responsible?' Well, the answer is pretty simple, actually.

It's essential to hold each other responsible in order to have it be the case that we conform to moral norms. And our responsibility practices—that is, our practices of holding each other responsible; of praise and blame, and social rewards and sanctions—what they do is they keep us in line and they leverage our ability to anticipate events.

And this is all a causal process. If we were uncaused it wouldn't work. So, being held responsible is still necessary and essential as a socially mediated way to make people into moral beings—to keep us in line, so to speak.

Campbell: So, our culture is part of the cause. The cultural expectations are part of what cause us to act.

Clark: That's right. Precisely. And if we were uncaused and had contra-causal free will, then those social expectations and the expectation of praise and blame wouldn't have any causal purchase on us. So, it's a good thing that we're not uncaused.

It's a good thing that we don't have contra-causal free will. Otherwise the prospect of being held responsible wouldn't work. So, we don't need contra-causal free will. We don't need to be exemptions from determinism to be held responsible.

Campbell: My concern is that the realization that we are caused by a combination of our genetics and our environment is being turned into an excuse for not taking responsibility for our actions. It's not like blame has disappeared, it's just that it's always someone else's fault.

Clark: Right. Yes, there is the temptation to pass the buck. But what naturalism shows is that human agents are just as real as the factors that cause them. So, it isn't as if I disappear as a causal agent in the world.

Which means that if I do something wrong, it's legitimate to come to me and say, 'Hey, you better shape up.' Although it's true that I'm not an ultimate originator of my behavior, I'm the proximate cause, and so I get included in all those things that you'd want to address in making me shape up.

But what this view does—although it doesn't get rid of personal responsibility, as so many people suppose, because the agent still is there—but what it does is it shows that the agent is not self-caused, and therefore in explaining what he or she does, you look at the outside picture as well as the inside.

And that gives you a better idea. It gives you more power and control in terms of helping a person shape up. Because you say, 'Well, Clark, you're behaving badly because of these various factors, so I think we can help you by changing these factors.'

So, I think this view is very useful because it shows the actual causal story of why people behave the way they do. It doesn't obviate personal responsibility, because agents still exist and can be held responsible.

And it makes us more compassionate, because we see that people, indeed, are not ultimately self-caused—they come out of circumstances. And that's a very crucial insight, I think—one that relates to how we treat each other, how we think about ourselves, and such things as criminal justice and social inequality.

Campbell: It's just that it seems like people's thinking is so simplistic that a lot of times stuff that ought to be used in that way just gets distorted and oversimplified.

Clark: Of course.

Campbell: It drives me crazy, because as a physician I'm held responsible for what I do and what happens to my patients, but it seems like the patients aren't ever held responsible for their choices.

Clark: Well, it's a good point. The worry about personal responsibility and holding people responsible is an important one to address. But, of course, if we suppose there's something uncaused about people, that sets them up for ultimate blame and ultimate credit. And we don't need that in order to hold them responsible.

What that does is it inserts a mystery behind human behavior that we'll never get at. So, it actually is disempowering. Besides, it sets us up for ultimate credit and blame, and therefore for contempt, for pride, for unnecessary shame and guilt. So, the myth of the contra-causal agent is not necessary for either holding each other responsible or for taking responsibility—which you do as a doctor.

And you can explain to your patients, 'Look, yes, I know you're fully caused; and I'm going to ask you to take responsibility for your behavior.' And that's a cause that's going to help you be more responsible, because you're setting up expectations.

This happens in addiction treatment all the time. The therapist sets up expectations for the addict. And saying to the addict that, 'You could just choose to quit drugs by your own contra-causal free will,' is of no use whatsoever.

Campbell: I like the way you're kind of turning the argument on its ear, because you're taking these people that want to defend the a-causal free-will and saying, 'Well what good does that a-causal free will do you? Not much!'

Clark: Right. On what basis would an uncaused agent decide to do something? There's this little bit of uncaused, uninfluenced agency inside. OK, on what basis does it decide what to do next? Well, it doesn't have any basis, because it's not being influenced by anything. That's why being an uncaused causer wouldn't do us any practical good. It's very important to see that.

Campbell: Then there are the people who want to save it with [quantum indeterminism](#). I mean, how is that going to give us any control?

Clark: Exactly. Yes, it's the same issue. Anything indeterministic or random that's inserted in the process of getting from what I want to my actions, that robs me of agency. That robs me of authorship for my actions. Because, after all, it isn't my character or my desires, it's a little bit of random stuff put into the mix.

So, randomness really doesn't help. It doesn't help me be a responsible autonomous agent that you can hold responsible. We shouldn't look to any kind of indeterminism as a solution to the so-called problem of free will. You wouldn't want anything indeterministic going on in how you interact with the world.

Campbell: Yes. I don't really want my neurons deciding that they're going to start throwing dice before they decide whether to fire.

Clark: Exactly. The only way you'd want that is if you supposed that [determinism](#) was a threat. And many people think that determinism cause and effect is a threat.

I found a wonderful quote on a discussion board, which really says what I think a lot of people think. This person says, 'I cannot accept a deterministic limit to my thoughts and ideas, to my imagination, to my desire for continual improvement.' He says that, 'We need an ability to transcend the deterministic limit of our biological and physical histories.'

And the way someone else put it was, 'My preference is the result of my nature and nurture. My will can decide whether I follow my preference or do the opposite.' So, what these people want is some kind of little outside intervening agent, that no matter what the case, could have done something else. But as we've seen, that little bit of uncaused agency would have no good reason to choose one way or the other.

Campbell: It seems like with that viewpoint we'd also have to be feeling guilty every time we didn't do that better thing that we think we could have done, that somehow it feels like we just didn't have the will power to do.

Clark: Yes, that's exactly right. You've put your finger on one of the central points that we try to emphasize at the Center, which is that this causal view of ourselves—the fully naturalistic causal view—does lead to a reduction in unnecessary self-blame and guilt.

If we get rid of all self-critical attitudes (after all, we're social creatures and we're susceptible to wanting people to like us, and avoiding censure, so that's still there) what we avoid, as you just so nicely said, is the kind of blame that gets generated by supposing that no matter what the conditions were I could have done the right thing, but just didn't, darn it. That makes me the ultimately

blameworthy agent—for instance, someone who could be damned forever to burn in Hell, as the Christians used to put it.

Campbell: To take just a benign example, if I decide to sleep an extra hour, like I did today (during which I dreamed I was missing an interview with J.K. Rowling; sorry about that, Tom, I didn't dream I was missing your interview) if I do that, I have to accept responsibility for the fact that that hour I might have gotten some other work done, I don't have. But I can also accept the fact that maybe my body wanted that extra hour of sleep.

Clark: Right. Exactly. This is a nice, as you say, benign example. When things get more consequential—when you screw up in a way that really affects people—then naturally, and quite properly, you're going to feel at least a twinge, if not a considerable jolt, of regret; feeling that you shouldn't have done that.

And that's perfectly appropriate. I think you put it in one of your podcasts that I was looking at recently: Guilt and shame are signals. And if we got rid of that signaling system altogether, we would become morally uncontrollable. We'd become immoral.

So, we don't want to get rid of these attitudes altogether. They're very natural, and they're important. But what the naturalistic view of ourselves does is it mitigates the unnecessary extremes to which we sometimes pillory ourselves for our so-called sins.

Campbell: Yes. I'm going to take a break for a minute, and we'll be right back.

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Campbell: My guest today is Tom Clark from the Center for Naturalism. Tom, you had a wonderful [review](#) back in January, about the same time I did my podcast. You reviewed *Did My Neurons Make Me Do It?* I was wondering if you

might just talk a little bit as a naturalist about your response to the book, *Did My Neurons Make Me Do It?*

Clark: As a naturalist I was very pleased with that book, because although the authors are theists, the book is completely naturalistic in its approach to the problem of the mind, and the problem of free will and responsibility. [Nancey Murphy](#) and [Warren Brown](#) are [Christian physicalists](#), and they do a terrific job in this book of showing how a completely physical system—the human person—can be rational, can have, as they put it, top-down control over behavior, and thus can be a responsible agent with the kind of free will that we talked about before. Not the contra-causal type, but the free will of being a voluntary agent that can be held responsible.

I think they do a fine job. They cover a lot of territory in it. But it's completely naturalistic. And they're tough questions. The issues of how, as they put it, reason gets a grip on the brain, how we refer to the outside world in our thoughts, issues of consciousness and mental causation, those are tough issues in the naturalist community.

And I think they do a good job. Of course, it's not a complete case for what they call non reductive materialism. But they do a very good job of defending this non reductive view; which I think is pretty much the mainstream now in neurophilosophy when it comes to the mind.

Campbell: And it's good to have an argument that doesn't come down to free will is just an illusion, because that's not a very satisfying answer— to me, anyway.

Clark: Right. Again, we have to make sure that we define our terms. Free will of the contra-causal variety very much is an illusion that a lot of people are subject to. It's important to see that, because we have to get free of that illusion.

That illusion is disempowering. It allows people to blame us and for us to take credit in ways that really are false.

And it blinds us to the actual causes of human behavior. So, we have to get free of the illusion of contra-causal free will, but understand that, yes—as Murphy and Brown show, and as Daniel Dennett shows, and as I agree—we have other kinds of very important freedoms that are consistent with being fully determined creatures.

What Murphey and Brown want to show is that, in understanding people, we can't take a reductive understanding at the molecular, physical, or chemical level, of what people do. And that's fair enough. That, I think, is fairly uncontroversial.

Campbell: Did you feel that they were trying to force God back into the picture?

Clark: I didn't see that they mentioned God in this book.

Campbell: The reason I ask you that is because on my [Discussion Forum](#) for the *Brain Science Podcast* there was a big brouhaha from listeners who just assumed that was their agenda. And they hadn't even read the book.

Somehow I felt like I must have failed in some way in describing the book when I got that kind of feedback. It seems like there is a certain segment of atheists who feel that they must believe in a reductionist viewpoint. I don't know.

Clark: Yes, I think they probably saw that these folks were Christians and therefore immediately assumed, without having read it, that they were being somehow [dualistic](#), or non naturalistic in what they actually write about. And, of course, they're not. They're completely naturalistic, which is why it's a good book. So, that kind of criticism, I think, is misguided. It doesn't apply.

Campbell: I agree. One of the issues that they talked about—and I think you’ve written about—that I haven’t had a chance to talk about in either of my podcasts, is the issue of what does make a person a moral agent.

Clark: We have the capacity as human beings to, first of all, imbibe moral norms as we grow up. We have probably an innate moral sense of right and wrong about how people should be treated. And that gets, shall we say, sculpted by our culture, by our upbringing, by our parents and peers, into a definite moral view of how we should treat one another.

So, we can come up with a naturalistic explanation of morality as a natural phenomenon. And we can look at particular cultures and see how they might differ in some respects, but there are moral universals out there that come from being biological creatures who live in social groups. I think that’s fairly uncontroversial to say.

We concede morality as a natural phenomenon coming out of biology and culture. Of course, what naturalists can’t point to are any supernatural foundations—moral commandments, for instance. And that, some people think, is a major deficiency of naturalism. The people who think that are Christians or other religionists who think we need these supernatural foundations. I don’t think we do.

We’ve been designed by evolution to take moral rules very, very seriously. And we have them, and generally we abide by them. And we have social systems to help us do a better job of abiding by them. And I think that’s all we need to be moral creatures.

Campbell: So, those that would be afraid that neuroscience would undermine the social system are wrong, because the better we understand what makes

people behave the way they do, the better chance we have of actually being able to effectively maybe help people who can't act morally.

Clark: Exactly. That's a wonderful point. And it's something you've talked about several times, where I heard in your podcasts that our increased self-understanding—a cause and effect understanding of ourselves, of why we behave the way we do—gives us self-control. And that will feed into how we can learn to be better moral agents and improve our moral responsibility practices to be more effective and, I hope, more compassionate.

Campbell: It's funny, people attack naturalism—or determinism, anyway, which is not the same thing. They will say, 'Well, we have to have this free will. Otherwise society will fall apart.' And it seems that you're arguing exactly the opposite. We could actually have a better world if we got rid of the belief in contra-causal free will.

Clark: That's right. And I'm by no means alone in thinking this. There is a group of philosophers and scientists—some of whom are on our advisory board and our board of directors—who feel very much the same way. [Joshua Greene](#) at Harvard has written about this in an essay ¹ he did about criminal justice—why neuroscience will change our view of criminal justice.

So, we don't have to be afraid of determinism at all. We don't have to be afraid of seeing ourselves as caused creatures. In fact, as you were saying before, we'll understand ourselves better, and this will allow us to create the conditions under which we can be better agents. And as Josh Greene argues in his [paper with Jonathan Cohen](#), it will shift our criminal justice practices in a more compassionate direction.

¹ "For the law, neuroscience changes nothing and everything" by Joshua Greene and Jonathan Cohen; *Philosophical Transactions of the Royal Society Lond.B* (2004)359,1775–1785. Part of the Theme Issue "Law and the Brain." ([Download PDF](#))

We won't be as [retributivist](#) in how we punish people. And in fact there is some research that has just come out on this—it isn't widely known—but research that shows when people stop believing in contra-causal free will, they actually do become less retributive in how they decide how to treat people in the criminal justice system ².

Campbell: I want to talk about the implications of the naturalistic worldview. But before we do that I do want to ask you one real straight question. And that is, does naturalism imply [atheism](#)?

Clark: I think practically speaking it does. A dogmatic atheism that supposed that there's no possible way anything supernatural, including a God, could exist, that perhaps is not defensible under naturalism. But the pragmatic denial that there is any likelihood of the supernatural, including God, I think is quite justifiable under naturalism.

After all, there's no positive evidence—intersubjective public scientific evidence—of a deity. And if you make up your mind about what to believe in on the basis of what there's evidence for, then it seems to me it's justifiable to say that there's no good evidence for God. Therefore I'm an atheist for all practical purposes.

I think [Richard Dawkins](#) said that on a scale of 1 to 7, he was a 6 in terms of his atheism, because he couldn't rule out the bare possibility that evidence might come along that there is something supernatural out there. And I have to agree. We don't want to be dogmatic in our naturalism.

But on the other hand, since there's no good evidence for God, I'm perfectly comfortable saying that God doesn't exist. And I think most naturalists would

² “Beyond Retribution?: Effects of Encouraging a Deterministic Worldview on Punishment,” by [Azim F. Shariff](#), University of British Columbia, Joshua D. Greene, Harvard University, and Jonathan W. Schooler, University of California at Santa Barbara (submitted).

probably agree with that. Although, as Dawkins said, there are varieties of the strength of one's atheism.

Campbell: Well, I just got one of the books you mentioned in *Encountering Naturalism: [The Sacred Depths of Nature](#)* by [Ursula Goodenough](#). And she seems to be coming at it, actually, from a believer's standpoint, if I understand what she says at the beginning. I think she says she became a Presbyterian. So, it is, at least theoretically, possible one could be a Christian naturalist.

Clark: That is a bit puzzling, of course. Ursula Goodenough is one of the major proponents of what's called [religious naturalism](#). I think it's fair to say that she is not a theist herself. She may have grown up in the Presbyterian tradition, but I don't think she has any belief in a personal God, or even a deist God.

Religious naturalism is meant to be a broad enough tent so that if you have theistic inclinations, so long as your theism is consistent with naturalism—and that seems to be a hard kind of consistency to maintain—then you might be able to count yourself a theistic naturalist. That's to me a dicey proposition. But a lot of people don't want to let go of the idea of God—a metaphorical God; [Spinoza's](#) God; the God of nature; or, God as nature.

If you want to do that—if that's your preference—I'm not going to try to talk you out of it. It's just that I find it ontologically inflationary and kind of misleading to talk about the existence of God if you are indeed someone who sticks with what science shows to exist. Because there's no good evidence that there's anything beyond nature as science describes it.

Campbell: But there is a segment of people that supports using the scientific method and who still believe in God. It think it does show what several neuroscientists have also observed. And at a certain level of belief we don't

necessarily control that. Some people still believe in God, even though they say, 'Well, I know I can't prove it,' or, 'I know there's no evidence.'

That brings us back to accepting that people are wired the way they're wired, in a way, I think. I have a problem with radical atheism, because if people are in that place it's not like they willfully—I guess 'willfully' is a misleading word—but to a certain extent it's not under conscious control.

Clark: Belief in God, you mean?

Campbell: Yes.

Clark: Well, I like to think that beliefs are under conscious control. If they're, as I put it, epistemically responsible beliefs, they should be under conscious control—that you draw your conclusions from evidence. But you're right. I think that people are psychologically disposed to want to believe in the supernatural—that there's something more out there than just the physical world that we can see.

That might, in fact, be an innate tendency that, say, a practicing scientist would have to resist, or a naturalist would have to resist. I don't think everyone has that propensity. I don't find it in myself. But I take your point. Some people are strongly innately motivated to really want to think there's Something More. I think that's a human failing. But there it is; what are you going to do?

Campbell: Well, one of the points you make in your book is about having more compassion for people being the way they are. And I'm just saying that I think that this is part of the way people are.

Clark: Good point. We understand theists, and therefore we don't demonize them. They couldn't just choose to stop believing in God.

Campbell: And if you talk to a lot of atheists that didn't start out being atheists, if you look at their story there's also the transition period. And you can't will that transition period between when you have that cognitive dissonance—you know the facts don't fit, but you're not ready to let go yet.

Clark: Oh, absolutely.

Campbell: I'm just saying that has to take its own natural course.

Clark: Yes. It's very difficult to give up central beliefs. I'm no exception. I'm sure you're no exception. You get attached to your worldview—what you suppose is true. You don't want to suppose that you've been wrong all these years in a particular belief.

It's very hard to let go, because we all have a personal investment in being right, I think—unfortunately. Which is a very non scientific attitude to take. But there it is. We have to combat that. And as you say, the process of letting go of these central beliefs that are wrong, ultimately, is a long process. It often is.

Campbell: Yes. We also seem to be wired to prefer certainty over uncertainty.

Clark: Right. We don't like ambiguity, and we also want to know that the world is to our liking—or we'd like to think it is. We don't want to suppose that at death we simply disappear. There are all kinds of motivations that we naturally have to want to deny the naturalistic picture of ourselves to some extent.

So, that's why naturalists, I think, tend to be those people who put the cognitive value of truth, as best as we can discern it, at the top of their value hierarchy. So, scientists, naturalists, they really want to know what is the case, and if it conflicts with some of what they would hope to be true, well that's just too bad for the hopes.

On the other hand, naturalism gives us a very awe-inspiring, wonderful picture of who we are in this huge cosmic scenario—the grand story told by science of the Big Bang, and then evolution on earth, and the likelihood that there's life elsewhere in the universe. It's a fantastic story that I find much more enriching, much more inspiring than the kind of cramped biblical theism that some people think has to be true, otherwise life loses its meaning.

Campbell: Yes. I gave up the Christian God before I gave up God, because the Christian God was too small. I embraced the Spinoza God for quite awhile before I let go of it, because that was a nice big one.

Clark: Right. But then when you see that, if God is identical to nature, then why are you calling it God, in a sense?

Campbell: I couldn't figure out who I would be praying to.

Clark: Right. Because the concept of God is essentially personal, I think. And to try to depersonalize God, I think, is ultimately to eliminate God. I guess that's what happened to you.

Campbell: With a side trip into Buddhism. But Buddhism has a lot to offer in terms of understanding human nature. That's absolutely for sure.

Clark: Indeed. One caution I would suggest, though, is that Buddhists and many folks in the meditative traditions suppose that they grasp reality directly through their meditative practice. I think that's a big mistake. And it gets back to the whole question of epistemology—how do you know it's true. I meditate occasionally. I think it's a wonderful resource to have.

Naturalists can meditate, and I recommend it. But meditation and the mental states that you're in when, say, thoughts stop arising, are not direct reflections of

reality. Because what are you doing? You're supposing that your private subjective mental state is somehow grasping reality directly.

But what we know now is that consciousness is a model of the world that could be mistaken. And if it turns out that your mental state of being, say, at one with the universe is in a sense true, and a naturalistic story—because it is true, we are completely at one, we come out of the natural world, we're completely parts of it—the insight from meditation that, yes, I'm one with everything, correctly mirrors what science shows to be the case.

But that experience itself isn't a direct grasping of reality. And that's where I think we have to really caution Buddhists and other meditative traditions that epistemologically you can't justifiably suppose that your mental state is grasping reality directly. It might reflect the truth, but it isn't a grasping of the truth.

Campbell: Most Buddhist writings about reality really sort of come down to a dualistic worldview that somehow the mind really is separate.

Clark: Yes, there is latent dualism there. Although, as I mentioned at the beginning, Buddhism—at least the Zen [Mahayana](#) tradition—very much questions the idea of an immaterial separate self, or soul. So, in a way it's non dual in that respect. It doesn't set up the self as being something independent of the world, because everything is interdependent.

In that sense Buddhism and science are, I think, exactly on the same path. But to the extent that dualism creeps in—for instance, in [reincarnation](#); to suppose that the self is reincarnated—then, yes, it's definitely gotten off track there. But we have to remember there are many different varieties of Buddhism.

Campbell: Right.

[music]

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Campbell: Let's get back to naturalism for a minute. Tom, to finish up our conversation, would you like to talk about what you think are the most important implications of the naturalistic worldview?

Clark: Sure. First of all I think one implication is that we have to know how we know. We have to be careful in deciding what's true. And what naturalism suggests is that when it comes to deciding what's real, or what's true, we have to stick with science and the other intersubjective ways of knowing. Because those are the most reliable ways. And I think we can all agree that those are the most reliable. So, that's one important implication of naturalism as a worldview—its foundation in empiricism.

Then another important implication is that nature is all there is. That's the ontological conclusion that comes out of taking science as your way of knowing. So, that's a big metaphysical claim—that there's nothing supernatural, as far as we can tell. So, that's the basic metaphysics.

Then when it comes to the self, a big conclusion is there's nothing supernatural about us. We don't have a soul. We don't have contra-causal free will. We're physical creatures through and through. We're fully connected to the world historically and in this current moment that's arising right now.

The agent doesn't disappear. We're still real as all the things that caused us, but still we're fully connected. So, connection and being completely natural is a very important implication of naturalism.

Then, once you've put that ontological picture of the self together with the fact that we're embedded in nature, what follows? Well, you've got conclusions about power and control, because understanding the causal story of how we get to be the way we are (and I think you agree about this) that gives us the power of understanding that otherwise would be obscured if we supposed we did have some kind of little undetermined spark of soul within us.

So, power and control flow from taking a naturalistic worldview. And, by the way, when I talk about control I don't mean to suggest that we therefore have the right to control other people. We still have the humanistic democratic values of human rights fully intact. But what it does is it gives us practical control, because we understand that humans behave the way they do because of conditions—biological and environmental.

And then finally—we've talked about this—another major conclusion is compassion. And this is, again, consonant with the Buddhist tradition, which is all about compassion. The naturalistic worldview, I think, leads to a compassionate understanding of one's self and others, because we understand that people are not little self-caused gods.

We've come completely out of circumstances. And when we see this we'll be led to understand that there, but for circumstances, I would be the addict, I would be the homeless person. So that, I think, inevitably generates compassion and understanding for other people and ourselves.

Those are some of the major conclusions, I think, of a naturalistic worldview.

Campbell: So, in connection with the idea of compassion, do you think we could see our opponents differently?

Clark: Absolutely. This helps us not demonize our opponents. In whatever realm we're talking about—whether it be politics, geopolitics, racial strife, ethnic strife, ideological combat—we see our opponents as fully caused and understand that we would have been them, but for circumstances. And this means that we cannot demonize them. We can't feel the same kind of contempt and anger that we otherwise could.

And this applies to atheists, by the way. Atheists are often very contemptuous of theists; and sometimes the other way around. And I think a naturalistic worldview does a lot to undercut contempt; to undercut this kind of holier- or smarter-than-thou attitude that people have. So, yes, I think it has a definite effect on our interpersonal attitudes, and therefore on our behavior.

Campbell: Because it seems like we live in a time where compromise is treated as if it were a dirty word, and we really need to learn again how to compromise and how to find allies that don't necessarily agree with us about every single issue.

Clark: Absolutely. My interest, I should say, is not only in naturalism, but it's in the open society—keeping society open. I don't particularly care if someone is theistic or non naturalistic, so long as they agree with me about the importance of the open society. I happen to think, for the reasons we've just been discussing, that naturalism is a good metaphysical basis for the open society, because it leads to tolerance and compassion. So, I think that's an important thing to say.

But having said that, it isn't as if I want to force or demand that everyone become naturalistic. That would be unreasonable. There's too much human variation for everyone to agree with us. But we can understand and be tolerant and accepting

of the fact that, because of their circumstances, many people are not going to be naturalists, and so we live and let live.

Campbell: Well, I'm with you there. My priority in doing my work is to promote accurate scientific understanding about things, because I think that's also an important component of keeping our open society.

Clark: Yes. And I think there's a connection between having an accurate understanding of things and being democratic and being tolerant, because many worldviews that hold prejudicial attitudes about, say, women, or gays, or minorities are premised on beliefs that are non empirical.

Campbell: We could even look back at Soviet Russia. During the time of Soviet Russia they had a different view of evolution—[Lysenkoism](#)—and it was totally wrong. And they forced it on the scientists, because for some reason that was the one that the authorities had decided would be the official science. And that suppressed Soviet science during those years. That's the kind of thing that scares me about recent political trends.

Clark: Exactly. You've put your finger on an important point, which is that the scientific attitude of being open to new evidence and information is very much in line with the open society. And, as you just said, an attempt to enforce an ideology is completely counter to the scientific empiricist impulse. So, this is why I think there's a nice fit between naturalism, which is science-based, and the open society, which doesn't suppress discourse and open enquiry, but rather encourages them.

Campbell: Tom, I really appreciate you taking the time to talk with me today. I think we could probably talk much longer if we had more time. Is there anything else you'd like to share before we close?

Clark: I think we've pretty much covered it. I want to say that I appreciate what you're doing in keeping science out there and up front. I think we both agree that there is no contra-causal supernatural free will, but we agree that there are important kinds of freedom that still survive the naturalistic view of ourselves.

And those are important kinds of freedom. And I think that's important for people to keep in mind when they look at naturalism as a worldview—that we don't disappear as agents, we have freedoms, we can be held responsible, and we can behave and are morally responsible. So –

Campbell: There's nothing to be afraid of.

Clark: Exactly! There's nothing to be afraid of. I think people do fear, say, determinism or mechanism, because they think life inevitably will lose meaning. But that really isn't the case. We still have all our desires and our motivations, even though we discover ourselves as fully natural creatures.

And that's the basis for morality and for engaged action in the world—our moral sense, our motives as they arise, all of that still stays intact. We don't need anything supernatural to be moral, valuable, effective agents, and to find the world a remarkable, incredible place to find ourselves alive and conscious in.

Campbell: Being at home in the natural world, the natural world really is enough.

Clark: It is enough. Yes. And I think that's one of the major points that I'd like people to take away. Nature is enough. And it's remarkable. So, what more could you want, really? If we agree on that, then that's terrific.

[music]

I want to thank Tom Clark for coming on *Books and Ideas*. You can find links to his book and the [Center for Naturalism](#) in the show notes at [booksandideas.com](#).

I need to make one correction. When we were talking about [Lysenkoism](#) I referred to it as a theory of evolution. It was actually a theory of inheritance. The Soviet authorities rejected the discoveries of [Mendel](#); which is actually rather ironic when you consider that Mendel was Russian. However, the point I was making is still valid. When ideology is allowed to suppress open scientific inquiry, bad things happen.³

The next episode of *Books and Ideas* will be the live episode that was recorded at [Dragon*Con](#) 2009 in Atlanta, Georgia, over Labor Day weekend. It is an interview with [Les Johnson](#) from NASA.

I chose to air Tom Clark's interview first because it leads naturally into the next episode of the *Brain Science Podcast*, which will be out on the second Friday in October. That will be the interview with [Warren Brown](#), co-author of *Did My Neurons Make Me Do It?* So, you might want to go back and listen to [Episode 53](#). You can find the *Brain Science Podcast* in iTunes and at [brainsciencepodcast.com](#).

Also, for a change of pace, probably in November I will be interviewing best-selling horror writer, [Scott Sigler](#). Our focus will be on the challenges of incorporating hard science into fiction.

Finally, before I close I want to come back to the subject I brought up at the start of this podcast: How can *Books and Ideas* find a larger audience? I realize that part of the problem is it doesn't fit easily into any of the main categories in iTunes. However, I think there are some things that you can do to help.

³ I want to thank Lori Wolfson for providing another [link about Lysenko](#). Lysenko (1898-1976) was a dogmatic proponent of Lamarckian evolution (inheritance of acquired characteristics). Thus in a sense I was right to call Lysenkoism a theory of evolution.

Obviously, word of mouth and blogs are important. If you Twitter and want to refer back to me, I am at Doc Artemis on Twitter. Also, reviews on iTunes are important, even though no one knows exactly how they are factored into whose podcasts get featured.

Please feel free to send your suggestions and feedback to me at docartemis@gmail.com. And don't forget to join our new [Facebook Fan Page](#). Just go into Facebook and search for 'Books and Ideas Podcast.'

I appreciate your listening, and I look forward to talking with you again next month.

[music]

Theme music for *Books and Ideas* is "The Open Door," by Beatnik Turtle. Be sure to visit their website at beatnikturtle.com.

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