

# “If Nobody Looks at the Moon, Does It Exist?” and Other Metaphysical Questions.

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Announcer:

Can computers think? What are panpsychism and cosmopsychism? This week on Mind Matters News, we dive back into the depths of philosophy with Dr. Bernardo Kastrup and our guest host, Dr. Michael Egnor. Enjoy.

Michael Egnor:

Greetings. Welcome to Mind Matters News. This is Dr. Michael Egnor. I have the privilege today to have as my guest, Dr. Bernardo Kastrup. Dr. Kastrup has done a lot of work leading the modern renaissance of metaphysical idealism, which is the notion that reality is essentially mental. He has a PhD in philosophy with a focus in ontology and philosophy of mind, and another PhD in computer engineering. As a scientist, Bernardo has worked for the European Organization for Nuclear Research and for Phillips Research Laboratories, and he has written many academic papers and books. He's also written extensively on philosophy of the mind, and it's our privilege, Bernardo, to have you as our guest today.

Bernardo Kastrup:

My privilege to be here, Mike. It's an honor to speak to you.

Michael Egnor:

Thank you. You have said and written that physics points to the mind. What do you mean?

Bernardo Kastrup:

Well, I'm alluding to quantum mechanics, which is a tricky thing to allude to because it's so generally misunderstood and abused. But I dare to believe that I am not misunderstanding what has been going on over the past several decades in experiments around quantum entanglement, which basically refute the notion of physical realism. These experiments refute the notion that there is an objective physical world out there, even when it's not being observed, with define objects occupying defined positions in spacetime. I think this notion, which is so intrinsically related to materialism or physicalism, this notion is out the window now. I think it has been now sufficiently refuted that we can move on, and that would mean that we should move on from materialism then.

Michael Egnor:

I would certainly agree that a deep look at quantum mechanics really leads one to believe that idealism is overall a much more satisfactory description of nature than is materialism. But I'm curious. Does that mean that, if no one is looking at the moon, that it's not there?

Bernardo Kastrup:

Well, there certainly is something out there that is independent of all of us as individual minds and which seems to hold the state of the world when nobody's looking at the world. Because when I park my car in my garage at the end of the day and I come home and fall asleep and the next day I go down, hey, I find my car right there where I left it the last time I looked. So there is clearly something out there that is holding a state independently of all of us. The question is, is this something out there physical in the sense that we attribute to the word? In other words, is there something out there constituted of defined objects with defined positions in spacetime which are outside and independent of consciousness itself? That I would say is not the case, but I do think that there are transpersonal mental states that are not under the control of my volition or your volition, which does not depend on my looking at it or your looking at it. So they are just out there. They are not physical; they are mental states. Physicality arises when there is an interaction between mind or your mental state and these transpersonal mental states out there. That interaction, that interference, gives rise to what we call the physical world of objects in spacetime obeying causal laws.

Michael Egnor:

These transpersonal mental states, are they any persons mental states, or are they mental states that exist without persons?

Bernardo Kastrup:

I would say they are mental states that exist without persons. By definition, these are the mental states that transcend mental mentality or mentation, so to say.

Michael Egnor:

If you were to describe your own metaphysical perspective, what to it be platonist? Would it be [inaudible 00:04:47]? Would it be idealist in a more general sense?

Bernardo Kastrup:

It would be objective idealism, largely. There are several versions of idealism. Maybe it's useful if I just give a very quick intro to the two main ones.

Michael Egnor:

Oh, please.

Bernardo Kastrup:

There is subjective idealism. That goes back to Bishop Berkeley. The idea there is that the world exists only insofar as my perception of the world. There is objective idealism, which says that, no, the world exists outside of our perceptions of the world. But this world is itself mental or exists in a transpersonal form of consciousness. So it is objective from four perspective, but it is still mental. Now my view of idealism is more related to objective idealism. I do think there is a world out there independent of us, so that's objective idealism. But at the same time, I also think that what we call the physical world depends on our observation. That's what physics is suggesting. Physicality only arises once there is a conscious being looking at these transpersonal mental states. That interaction is what leads to physicality. From that perspective, I am a subjective idealist as well, with respect to the physical world, and an objective idealist with respect to these transpersonal mental states that are out there but are not physical.

Michael Egnor:

I think it's fair to say that certainly 20th century and 21st century science has lent a great deal of credibility to the idealist perspective. But science really, since Newton, has been dominated by a materialist perspective. Why do you think that materialism has held sway for so long?

Bernardo Kastrup:

I think it's clear why it arose and why it was so popular in the beginning. I mean, it did solve a couple of problems. There were things that we had difficulty accounting for before materialism, such as the regularities of the behavior of nature. Nature seems to behave in very regular, predictable ways that we got into the habit of calling laws. They're not really laws because they don't need to be obeyed. They just happen to be the way things happen. But these regularities were difficult to account for under previous worldviews that were largely religious. Another thing that it may have done, it may have enabled a sort of separation between fledgling scientists of the 17th century and the objects of their study. They could pretend that they were detached observers, and that brought a certain level of objectivity to early science, which was useful.

Bernardo Kastrup:

I also think there were strong psychological reasons for our intellectual establishment, so to say, to embrace materialism the way they did in the 19th century, psychological reasons related to ego defense, looking for meaning, differentiation, self-validation, trying to compensate for the loss of a religious outlook that we had before [inaudible 00:08:16] in control, sheer control of nature that the materialist outlook was conducive to. So I think these are all reasons, some good, some bad, for why materialism came at the moment it came. Now why it is still there despite flying in the face of evidence both from physics and neuroscience, I would say, and despite our already understanding very good arguments why it is a malformed and intrinsically contradictory metaphysics to begin with, despite all this, it's still enduring. People are manufacturing plausibility for materialism continuously. Very intelligent people, very renowned people are so invested in materialism. Their image is so invested in it that they use their intelligence to manufacture plausibility for materialism.

Bernardo Kastrup:

I mean, let's look at physics. The dichotomy we have now, given the experimental results from quantum mechanics, is either you grant that the physical world is only there if it's being observed. Or if you want to safeguard the intuitions behind materialism, you have to say that there is an infinitude of parallel but real physical universes arising every femtosecond every time somebody or something just looks up. I mean, this is ridiculous. I submit to you that there is nothing more implausible than this, nothing. It's inconceivable to think of something more implausible than this, yet we have famous physicists who are saying, "Well, this is the way to go." Why? Because the alternative would importantly having to part with materialism and all the psychological investment that our intellectual establishment has made into it, and that's a pity.

Michael Egnor:

I would certainly agree that Everett many-worlds hypothesis, were it to be proposed in a psychiatrist's office, would warrant a diagnosis of psychosis. I mean, it's crazy. It might make the mathematics work, but, goodness gracious, it's madness. Why anybody would adhere to that perspective to defend materialism rather than just admit that mind plays a fundamental role in the metaphysics of reality is very hard to understand. Do you believe in God?

Bernardo Kastrup:

That's a deep question.

Michael Egnor:

That's the big question, huh? So what role, if any, does God or the concept of God play in your metaphysical perspective?

Bernardo Kastrup:

Let me put it this way, if a very close friend or a family member asks me, "Do you believe in God?" I will instantly say, "Yes." In public, it's more difficult, because I don't know exactly what people mean when they use the word. Do I believe in a bearded man up there in the sky that knows everything and is subjecting us to basically torture in order to see whether we comply with his directives? No, that's not my view of God. Do I believe in an omniscient ground for all existence, the image of which or at least a partial image of which is the universe we contemplate when we look up to the stars? Yes, yes. I think that's a very reasonable hypothesis, a very reasonable thing to postulate given logic and the empirical evidence that's available to us today.

Bernardo Kastrup:

I do not know whether this omniscient consciousness is self-reflective. I don't know whether it's deliberate. I'm inclined to think that it's not, which doesn't exclude intelligence. You can have very, very high levels of intelligence without metacognitive introspection, without self-reflection. So I tend to think that this omniscient mind underlying all nature is not self-reflective because it seems to behave in very regular ways, which are characteristic of instinct, intelligent instinct maybe. After all the universal constants seem to be very highly fine tuned. That suggests something, very intelligent instinct, but not deliberate, not self-reflective.

Michael Egnor:

It would seem, in a way then, that the mind that you're describing is obviously a mind of enormous power and intelligence, et cetera, except that, if it's not self-reflective, then that would be a pretty radical limitation on the mind. That is, it can know everything except itself.

Bernardo Kastrup:

That gives us a very serious hint for the possible meaning of life because we are self-reflective. We have evolved this capability, struggling in this environment of ours, in this planetary ecosystem. So I think that's a very, very interesting hint to what might be going on here. What is the attempt? Why is this happening? Where are we going with it? Who set us up for this and for what end? I think that there's a hint to it right there.

Michael Egnor:

What do you think of Thomas Aquinas's demonstrations of the existence of God, his Five Ways?

Bernardo Kastrup:

I am very skeptical of logical demonstrations for the existence of God. That's something that is inherent to scholasticism. It is tempting. I have had a phase in which I was tempted to try to demonstrate all kinds of things just by sitting and reasoning through a certain line of thought. But I don't think that ultimately

holds up. That said, I think we have very good reasons of another kind to postulate this inconceivable intelligence, conscious intelligence, at the ground of nature.

Michael Egnor:

Do you believe that free will exists?

Bernardo Kastrup:

Yes, but I would have to qualify this, because I think, unless you have thought through this question carefully, one's notion of free will is malformed. It's not coherent. Let me try to clarify this to you. We tend to think of free will as something that is neither random nor determined. If it is determined, then it's not free. But if it's random, is it free will? Because it's just random. It doesn't mean anything. It could be anything. I think what we actually mean by free will is when choices and actions are determined, but they are determined by that which we identify ourselves with. In other words, I have free will insofar as my choices are determined by what I think of as me, instead of an external force. So if I choose a job, I am free to choose that job because I prefer that job, because I think I will feel good, or because I want the salary that comes with it, instead of I lost my other job or I need to feed my children, an external force that imposes itself on me and forces a choice I make.

Bernardo Kastrup:

Now the question is, at a cosmic level, at the universal level, is there free will? I would say, surely, because if all reality is grounded on this conscious intelligence, this omniscient intelligence at the ground of nature, what it must do is what it wants to do because there is nothing outside of it to force it to do otherwise. In other words, it is free. It has free will because it does what it wants. But at the same time, what it wants is what it must want because of what it intrinsically is. As Schopenhauer said ... The essence of what he said was that we can choose certain actions, but we cannot choose what we want to choose. The want is determined. It's a function of what you are. So, yes, I believe in free will. At the same time, I believe in a form of determinism that I think means the exact same thing as free will. They're not only compatible, they are the same thing, just looked at from two different perspectives.

Michael Egnor:

Do you believe that human free will has an objective moral accountability? That is, are we morally accountable for what we choose, in an objective way?

Bernardo Kastrup:

I think most of our choices, even most of our wants, are not determined by the executive ego, that part of ourselves that we identify with. I mean, can we really choose what we feel? Can we really choose what we think? I certainly can't, otherwise I wouldn't be as neurotic as I am. Neurosis is one's inability to think what one wants or to feel the way one wants to feel. So my feelings and thoughts seem to be imposed on me from something I don't quite identify myself with as an individual, as a person. I'm sure there are ... Well, I know there are other states of consciousness in which I will disidentify with my ego and I identify precisely with that, that right now I consider foreign to me. So it's a matter of perspective. But from the usual perspective of human beings, I think we have little freedom. Not only society imposes itself on us. The physical world imposes itself on us. Even our own, quote, unconscious mind, which I prefer to call the obfuscated mind, our hidden traumas, other things we don't want to know about ourselves, our past, our worries, our insecurities ... They impose themselves on us as well and force us to go certain ways. So I think there is little free will from that perspective.

Bernardo Kastrup:

Now from a moral perspective, I like to think that morality can be established objectively, but not on the basis of some fundamental pronouncement about the nature of being or the nature of reality. I think ethics are pretty operational. They are pragmatic, so to say. I think a moral code or ethical code is that which allows our collective behavior to be the most conducive possible to progress, however you want to define progress. If progress is to live well and explore and unfold our capabilities as human beings, then there are certain rules or certain best practices that would make society as conducive as possible to that [inaudible 00:19:37], to that goal of developing our potentials as human beings. That could ground the morality at a very pragmatic, even objective level, but not necessarily appealing ... How to say it? To a revealed moral code from a transcendent source, if you know what I mean.

Bernardo Kastrup:

Because if you look out to how the universe works, how nature works, I mean, suffering is clearly part of it as much as love. I mean, if the ground of reality is this omniscient intelligence that we might as well call God, then terror and unimaginable cruelty is clearly a part of the potentialities of God. Why do I say that? Because it happens. If it happens, it couldn't have come from anywhere else.

Michael Egnor:

There has been a great deal of discussion in the popular press lately about panpsychism and cosmopsychism. What are they? What is your perspective on them?

Bernardo Kastrup:

Huh. To really do justice to philosophy in this respect, we would have to elaborate on the many variations of panpsychism and the many variations of cosmopsychism. I will boil it down just to two, which are the main ones, what people usually mean when they use the words. Panpsychis- ... Well, to be more accurately called, constitutive panpsychism, it's the notion that at least some of the elementary particles that constitute the universe, at least some of them are fundamental conscious. In other words, they have experiential states, fundamental experiential states, next to have fundamental physical properties, like mass, charge, spin, momentum, spacetime position and so on. So next to all of those physical properties, there is a fundamental experiential property to at least some of the elementary building blocks of the physical universe.

Michael Egnor:

Before we go further, I just wanted to point out that Aristotle and particularly Thomas Aquinas have argued that, in order to have a mental state, at least in the natural world, that you must have forms that are grasped by the mind through the senses. Saint Thomas famously said that, "Everything in the mind was first in the senses." How can something like a particle have a mind if it does not have sense organs with which to grasp forms. Or would you disagree with Saint Thomas, that you need to have sense organs to have a mind?

Bernardo Kastrup:

This is a long-term discussion in philosophy. The concept here is what philosophers call intentionality, the idea that mental states are about something else outside. If I think of a car, then I'm thinking about a car that I can see or perceive on the screen of my perception. This about-ness, some say is intrinsic to the possibility of there being mentality, of there being experience. I think most philosophers today

would say that experience does not always require intentional content. It doesn't always need to be about something else. You can have endogenous experiences, like sometimes you have endogenous desire. Sometimes you feel anxiety for no reason. The anxiety, unlike fear, is not about something. It's just an experience that arises from within the core of ourself.

Michael Egnor:

But if intentionality so is not a part of those experiences, how can you describe them to me? That is that, I have to think about something. You certainly can't describe my own internal feelings because they're my own internal feelings. I don't have them. How can they be referred to in a way that allows another person to think about them if they're not intentional?

Bernardo Kastrup:

They can't. Because for there to be communication, there has to be intentional content. It's the intentional content, those external references, that give us a common dictionary to be able to communicate and convey meaning to one another. So from a constitutive panpsychist perspective, electrons couldn't share with each other their inner states, but it is not incoherent to think, at least not incoherent for this reason, to think that an elementary subatomic particle could have an extremely simple endogenous experiential state.

Michael Egnor:

How would one distinguish a simple experiential state from, say, a more complex or sophisticated one? Certainly, the traditional Thomist way of looking at the soul, which would be sort of the core of the experiential state, is that it's metaphysically simple, that is, that it has no parts. So if one accepts the notion that a conscious state is a metaphysically simple thing in itself, how could one be more simple than another?

Bernardo Kastrup:

You could imagine that experiential states do not require consciousness to be not simple. But it could entail consciousness being excited in different ways. For instance, a guitar string is always one guitar string, but it can be excited in many different ways and produce many different notes. So you could imagine that what we call experiential qualities, they are so diverse because they are different patterns of excitation of this one simple thing that we may call consciousness or psyche or soul.

Michael Egnor:

One way that consciousness has been defined ... And, of course, the definition of consciousness is kind of a complex topic in itself. But one way it's been defined is consciousness is intentional states with a capacity to have intentional states. What would you say to that?

Bernardo Kastrup:

I don't think this is a proper definition. I think, if an infant is born and immediately thrown into an ideal sensory deprivation chamber, this infant wouldn't have intentional content. The infant wouldn't have perceptions. Instead of talking about intentional content, maybe it's easier to talk about perceptions, things we can see, hear, smell touch and so on. But the infant would still have endogenous experiential states. It would still feel anxiety. It would still feel desire, presumably. So, you see, I'm not defending panpsychism because I am terribly opposed to it. I think it's very wrong. I disagree with it at a very

fundamental level. But I don't think that the appeal to intentionality is the way to refute it. I think there are better, stronger ways to refute it that have been discussed recently in the media.

Michael Egnor:

Could you explain, please?

Bernardo Kastrup:

Well, there is one. I would be shot at for agreeing with Sabine Hossenfelder, a very no nonsense physicist. I confess that I actually like her. Please-

Michael Egnor:

[crosstalk 00:27:26]

Bernardo Kastrup:

... don't shoot me.

Michael Egnor:

I do too. She's a very interesting person and writes some interesting stuff.

Bernardo Kastrup:

Her argument is, you see, for there to be even endogenous experiential states, like emotions and thoughts, there would have to be some form variability. A guitar string produces a note when it's varying, when it's moving up and down. That's the excitation. It's a vibration. There is a dynamism. It's not purely static. It's very difficult to conceive of an experiential state that is completely static, like seeing only one color without any reference for you to be able to say that's white instead of black. If you only see white, then there is no white. Her point is that the inner state of the elementary subatomic particles doesn't change. It's a fixed inner state. If what we can measure physically is the appearance, the extrinsic appearance or the image of the inner experiential state, then insofar as the image correlates with the inner state, a static image correlates with a static inner state. But that would be incoherent. That's her point of view, that you cannot have a static experiential state. Therefore, subatomic particles, elementary subatomic particles, cannot have experiential states. I think that's a valid argument.

Bernardo Kastrup:

I would have another one. I would say elementary subatomic particles don't exist. They are an [inaudible 00:28:59] too, and physicists know this. An elementary subatomic particle is a particular pattern of excitation of a quantum field. That quantum field, that thing, although it's entirely abstract, it exists. To use an analogy to explain this, if you see a ripple moving on the surface of an otherwise very calm lake, you can point to the ripple and say, "It's here. Now it's there." Presumably, you can measure it. You can say, "It's this high. It's this long. It's this large. It's moving with that speed." You can characterize that ripple with all kinds of physical constants or ... not constants, physical quantities that characterize the ripple as a physical entity, yet there is nothing to the ripple but the water of the lake. The ripple is just a pattern of excitation of the water. The water isn't even moving from left to right. It's moving only up and down, but the ripple moves from left to right.



Bernardo Kastrup:

So a subatomic particle is just like the ripple. It is a ripple in the quantum field, and as such it doesn't really exist. It's just a way of talking about the pattern of excitation of the quantum field. But if the panpsychists bite this bullet, they would have to concede that the consciousness that they want to put in at that level nature as a fundamental aspect of nature would be spatially unbound because the quantum field is spatially unbound. You cannot say that the ripple is conscious because the ripple doesn't exist. There's only the quantum field. So you have to say the quantum field is conscious, but now you end up with universal consciousness because the quantum field is spatially unbound. It exists everywhere at the same time. That makes it impossible for panpsychists to explain why you and I seem to have separate consciousness in their lives. I can't read your thoughts. Presumably you can't read mine. I do not know what's happening in the galaxy of Andromeda. So I think that's a very strong argument against panpsychism.

Michael Egnor:

The other topic that has been quite a bit in the press recently has been cosmopsychism. How does that differ from panpsychism, and how do you feel about that?

Bernardo Kastrup:

The problem of panpsychists assuming that there can be this thing as a local experiential state attached to an elementary subatomic particle ... I don't think that this thing can exist, but assume it exists because that's what they do assume. Their problem then is to explain how the subjectivity of an elementary subatomic particle combines with the subjectivity of another and then another and then another until those micro subjectivities somehow compose my conscious inner life that's supposed to arise by the combination of the experiential states of the myriad subatomic particles constituting my nervous system. This is called the combination problem. There is no explicit and coherent way to make sense of this. It seems to be an appeal to magic, just as materialism is an appeal to magic. How does experience arise from something that is, by definition, non experiential? That's an appeal to magic.

Bernardo Kastrup:

A similar appeal to magic is to say, "Well, subjects can combine and form seemingly unitary, macro level subjectivities." I mean, nobody can coherently and explicitly think of how this could possibly happen. So to avoid this combination problem, some philosophers have moved to the exact opposite end of the scale. They say, "Well, there is only one universal consciousness." By the way, that's much more consistent with physics as we know. It's much more consistent with the quantum field theory, quantum electrodynamics ... Well, quantum field theory is the broader theory. But then that's called ... In cosmopsychism, there is only one universal consciousness, and the challenge that you have to face then as a cosmopsychist is to say, "How does this one mind seemingly break up or decomposes into a number of individual subjectivities like you, me, my cats, the bacteria swimming on the lake? How does the one ground the man?" This is called then the decomposition problem.

Bernardo Kastrup:

Now my personal opinion is that we have a solution for the decomposition problem. It's not only conceivable. We have it, empirically. It's called dissociation. The combination problem is fundamentally impossible. It's an incoherent thing to say that fundamentally disjoint subjectivities can combine to form a united, higher level meta subjectivity.

Michael Egnor:

What is the dissociation phenomenon that you refer to?

Bernardo Kastrup:

Oh, that's from psychiatry. I think today it's called dissociative identity disorder. For decades we have known clinically that this exists. It used to be called multiple personality disorder. It's when one unified mind, because of trauma or something else, some other causal factor, seems to fragment into multiple, coconscious, but disjoint subjectivities, different subpersonalities, so to say, that do not have complete experiential access to the inner life of one another. They may know of each other's existences, but they cannot access each other's thoughts, perceptions, emotions, at least not bidirectionally. Clinically, we have known for a long time that this exists, but there has always been doubt about whether patients of dissociative identity disorder might be confabulating or lying.

Bernardo Kastrup:

But over the past decade or so, neuroimaging has given us very objective evidence that this actually happens. There was a study in Germany. A woman had multiple dissociated personalities, which are called alters in the literature. One of those alters claimed to be blind. Lo and behold, when they hooked her up to an EEG, when a sight capable alter was in control, the visual cortex was active as is normally the case. But when the blind alter would assume control, even though the woman's eyes would be wide open, activity in the visual cortex would disappear. That shows the literally blinding power of dissociation.

Michael Egnor:

That's fascinating.

Bernardo Kastrup:

My claim is, at least on empirical grounds, dissociation provides us a very good analogy, a very good metaphor for what might be happening at a universal level, leading this one universal consciousness that we hypothesize to becoming many, to becoming you, me and my girlfriend downstairs and my cats and so on.

Michael Egnor:

Can consciousness have evolved by a Darwinian mechanism?

Bernardo Kastrup:

I think by definition it cannot. By the way we define matter, it could not have evolved because it platforms no function. Our physicalist account of reality entails that it is the measurable quantitative properties of matter that are causally efficacious. In other words, it's mass, spin, charge, momentum that leads to effects, that leads to the dynamisms of nature, to the chains of cause and effect. Consciousness, that qualitative state that seems to accompany that quantitative dynamics of physicality, by definition, cannot have causal efficacy. That's the definition of consciousness and matter under a physicalist metaphysics. So if it cannot produce an effect, if it's something that simply accompanies the material dynamisms of the world, it could not have been favored by a natural selection. Of course, what a materialist Darwinist would say is that it doesn't need to have an effect in order to evolve, even if it has no selective advantage. It could still have evolved. I think this basically renders evolutionary theory

unfalsifiable because, if something as presumably complex as consciousness can evolve even if it has no function, even if it's not selected by natural selection, then anything at all could have evolved. I mean, we might as well just throw our arms up and start over.

Michael Egnor:

That's actually a fascinating perspective because what you've described is in fact what Darwinists tend to suggest, that consciousness is epiphenomenal. But you're right. If something as remarkable as consciousness could take place without natural selection, then anything could take place without natural selection. Then what role does natural selection have in the explanation for nature?

Bernardo Kastrup:

Exactly. You see, they're forced into two alternatives. One, consciousness is strongly emergent. In other words, it's some thing that comes into being only when there is sufficient physical complexity, like the complexity of the brain. In other words, consciousness is something very complex. So they may appeal to that, but then they cannot explain why that complexity that leads to consciousness evolved, because presumably it's a very different type of complexity than the complexity required to manipulate data at the cognitive level without the accompanying experience. There's no reason to think that these two complexities are the same. They're incommensurable.

Bernardo Kastrup:

So the other alternative they have is to say, "Well, it doesn't need to be very complex for consciousness to accompany physical dynamisms, and therefore it could have just come along even if it was not selected for because it doesn't need to be complex." Well, that immediately puts you on the field of panpsychism, cosmopsychism and idealism, which also defeats materialism. So it's very difficult to see how the metaphysics of materialism can survive with Neo-Darwinism. I personally think that it's the metaphysics of materialism that we have to get rid of.

Michael Egnor:

Yes, and I would very strongly agree. What do you think of intelligent design theory?

Bernardo Kastrup:

I do not know enough about it to really make an intelligent comment, and I am ashamed to confess to this. But with I read about it, the limiting reading I spent on this, suggests to me that there is nothing crazy about it. It seems a very reasonable thing to imagine that there are organizing principles in nature that have a causal influence on the organization of genomes in the course of evolution, and that we may not be aware of these organizing principles yet. I mean, that's a fundamental assumption in science that there are patterns of organization out there that we don't know yet. That's why we do research. That's why we try to find out more about how the universe works.

Bernardo Kastrup:

So I think it is reasonable to imagine that the supposedly random mutations at the root of evolution may after all not really be random. They may comply to certain patterns of organization, some organizing principles in nature that we still do not know very well. I would say that evolution by natural selection does happen in the sense that species evolve into other species through the accrual of genetic mutations. But I think to say that these genetic mutations are random at root is a baseless statement to

make. We just do not have enough data, a randomness test, to see if these mutations are really random. For all we know, they are following certainly coherent and consistent patterns through the course of evolution. We do not know what the causal agency behind those patterns might be, but I think it's prudent to say that we do not know as opposed to saying that, "Well, they definitely are random," because that's something we simply cannot know. It's just a prejudiced statement by definition.

Michael Egnor:

Jerry Fodor, who passed away recently, but he was an atheist philosopher and a rather prominent philosopher of the mind. Fodor wrote a book called *What Darwin Got Wrong*, and I think it's one of the most insightful critiques of the Darwinian paradigm. Fodor proposed that natural selection is an empty concept and that it does no work. He pointed out that, when you look at evolution in populations of organisms over time, the evolution is determined by a combination of the internal constraints on the organism. That is, an organization can only do certain things physically because of its genetic and phenotypic makeup and its natural history, what sort of environment it's in. Once you know the internal constraints and you know the environment, then you know everything you can possibly know about the evolution of that organism and that adding natural selection as a narrative gloss to it doesn't add any information about evolution. I think it was a very perceptive critique of the Darwinian perspective.

Bernardo Kastrup:

If I may, instead of commenting, if I may ask you a question.

Michael Egnor:

Please.

Bernardo Kastrup:

I would agree that, if we know everything about the internal state of the organism and you know everything about the environment, then you do know everything there is to be known. But I would say that you know that precisely because, by knowing these two sides of the equation, you know how natural selection will proceed. You will know how the environment will favor certain organizations of internal states as opposed to others.

Michael Egnor:

Well, what Fodor argued ... And he carried his argument into a little more depth. But what he argued was that the concept of natural selection wasn't wrong. It was empty, that is, that once you know the internal constraints on the organism ... And he described them more as constraints than organization, meaning exactly what is an organism capable of doing on a purely physical basis. If you add to that a knowledge of the natural history of that population, that you know what caused evolution. Why invoke natural selection? Natural selection just seems like an empty, superfluous concept.

Michael Egnor:

My own perspective ... And this is not Fodor's perspective. My own perspective is that materialists have used the concept of natural selection as if it was a force in nature, that is, as if it was a level of explanation. I believe, and Fodor seemed to come at it from this perspective, that natural selection is not a level of explanation. It doesn't mean anything. What means things is the physical constraints that

each organism has as to what it's capable of doing, and the natural history of that organism and the population that it's in. Natural selection is nothing above and beyond that.

Bernardo Kastrup:

I'm not an expert in this, so forgive me if I say something that sounds ridiculous. I would imagine that sincere Neo-Darwinists would even agree with this, and they would say, well, that's precisely what they mean. Fitness is a relationship between the internal state and the external state. If there is fitness, then that internal state will tend to survive and reproduce more. Whether we need the concept of natural selection to refer to this may be just a linguistic convenience, but they probably would agree in essence. I don't know.

Bernardo Kastrup:

What I can share with you is that ... My first PhD back in 2001, half a life ago, was in computer engineering. I did run for a while in my life computing experiments with genetic algorithms, cellular automata in neural networks, but applying an evolutionary paradigm to that so as to force a certain architecture or a certain optimization structure to change and adapt according to some cost function that was determined by the surrounding environment, in that computer simulation. It was impressed on me from that time that fitness principles clearly seemed to happen in those simulations. If you change the function that gives you the cost, you get completely different organizational structures or completely different paths for solving a problem. So I'm not skeptical of that. What I'm skeptical of is the randomness of the mutations that underlie the process. My intuition is that the mutations aren't random.

Bernardo Kastrup:

Randomness, after all, is just an acknowledgment of causal ignorance. Everything, in principle, is caused. But when we don't know what the cause is and we can't discern any pattern, we say it's random, but that's all there is to it. It's ignorance. I suspect there are organizing principles that steer the mutations down some routes, some avenues that may increase an overall cost or reduce an overall cost function or teleological target, so to say. This is what I suspect.

Michael Egnor:

Sure, sure. I think that teleology is fundamental to change in nature, which is sort of what Aristotle suggested, that of the four causes, material, formal, efficient, and final, that final cause is the cause of causes, that is, that nature is kind of pulled along by teleological processes. The kind of program that you're describing really is intelligent design evolution rather than Darwinian evolution, that is, that everything you're describing is an intelligently designed system. It's kind of ironic that a lot of folks who come at evolution from the Darwinian perspective run simulations of it on a completely designed platform, which really is ... It's intelligent design research. If you really wanted to study evolution without intelligent design, you just have to leave a bunch of stuff on the desktop and see what happened to it.

Bernardo Kastrup:

If I can comment briefly on that, Mike, I'm not going to repudiate the notion that what I described is intelligent design. I suspected this myself for a while. But I would like to qualify that. I don't think that what's going on is that there is a deliberate designer that knows exactly how things should be, and which allows nature still to go through this suboptimal process to arrive at a point or to arrive at a

structure or a function that is already known from the beginning. This would seem to be a waste. I think it would contradict what we see around us. The universe is trying something, but it doesn't know really where it's going. So what I think matches my intuition is the notion that, when ... The universe seems to know whether it's getting warmer or getting colder. If it does something and it gets colder [inaudible 00:50:27] that's not the way. Let's try something else. If it gets warmer, oh, we'll they're more of that. But it doesn't really know where it's going with it. It only knows on the spot, is it getting colder, or is it getting warmer? Do you know what I mean?

Michael Egnor:

Sure.

Bernardo Kastrup:

It doesn't have a complete picture of the end state, because if it had, we would be there already, I think.

Michael Egnor:

It's almost a Deist perspective in some sense, that God kind of lets evolution run. Every once in a while he reaches in and tightens a screw here or there to try to make it turn out the way he wants it, kind of a theological evolution perspective, which I think is not defensible. I think it's ridiculous.

Bernardo Kastrup:

I don't think God ... how to say that? In a previous episode, we talked about, well, my conception of God, so when I use the word God, I'm using that conception. I don't think God is self-reflective. I don't think it is metacognitive. I don't think it tells itself, oh, I'm doing this now, and now I'm going to do that. I don't think that's what's going on. I think there are experiential states underlying nature. They are felt. They may be even omniscient, but I tend to think they are instinctive, not premeditated. So when I say it's getting warm or getting cold, what I mean is the universe may instinctively know whether things are going the direction that is not planned because there's no planning, but which minimizes some felt cost function or maximizes some felt desire function. It never knows beyond what is right in front of it, but it knows whether what's happening right now is conducive to that increased pleasure or reduced cost or not. It may influence things. There may be an organizing principle that influences things based on this experiential, instinctive reaction at the most fundamental level of nature. This is what I'm suggesting.

Michael Egnor:

Kind of an interesting perspective that falls out of our conversation that strikes me as something quite relevant is the richness of the idealistic perspective on metaphysics, in contrast with the materialist perspective. There's so much profound, fascinating stuff in the idealist perspective, and materialism is really just an impoverished mistake. Can computers think?

Bernardo Kastrup:

I think it depends on what we mean by thought. If thought is merely data processing, functional data processing that enables the performance of some function, some activity that's useful, I think definitely. Computers certainly can think in the sense that they can process data, take decisions, and we are increasingly being confronted with the effectiveness of computers in doing precisely that, in processing more data than we can and arriving at uncannily intelligent, so to say, solutions to the problems they are posed with. So from that perspective, I think artificial intelligence is not only a possibility. It's a reality.

Bernardo Kastrup:

Now if what we mean by thought is a content of consciousness, if what we mean by it is whether there is something it is like to have a thought, something it feels like to have a thought in and of itself ... Is thought a sign of conscious in their life, private conscious in their life? If this is how we define thought, then I would say with a very, very high degree of confidence, as a philosopher of mind and as a computer engineer who has worked for years on artificial intelligence, that computers cannot think in that sense. Computers are just tools. I know as a computer engineer that what I do with transistors, billions of transistors, I could do with water pipes, water and pressure valves. It would probably be something the size of the earth, but there would be nothing more to it than water pipes, water and pressure valves. I don't think water pipes, water and pressure valves are conscious in and of themselves. They are just material arrangements that process data and perform functions. But there is nothing it's like to be an intelligent computer, I would say. Computers just simulate conscious in their life. They are not conscious in and of themselves any more than a system of water pipes is conscious in and of itself.

Michael Egnor:

I wholeheartedly agree. From my own perspective, I have used the concept of intentionality to help make this more clear in my own mind. I have used it in this way. I think of computation as the matching of an input to an output according to an algorithm without any semantic content, meaning it's purely, in a sense, a mechanical process. Whereas thought, I believe, is always intentional. I think every thought has an about-ness to it. That is precisely what computation never has. It never has any intrinsic about-ness. The about-ness that computers have is about-ness that is imparted to them by the people who program the computer and the people who use the computer. But what do you think of that perspective?

Bernardo Kastrup:

There is a researcher, Pentti Haikonen, from Finland. He used to work at Nokia Research, when Nokia was a very large, dominating company some 15 years ago. Sponsored by Nokia, he did a lot of work on trying to develop what he called conscious machines. The way he went about it was precisely to tackle the point you just raised, the intentionality. His idea was, instead of just encoding information about the outside world in binary numbers that have no intrinsic meaning, they are just arbitrary labels, arbitrary codes for things that come from the outside, what he thought of was to ground specific signals to specific qualities of the external world. So if there would be a camera looking at a fruit, there would be a signal for redness. There would be a signal for large, a signal for small, a signal for texture. There would be wires connected to each one of these possible combination of qualities represented in the camera image. He would never mix these signals, so he would preserve the semantic grounding throughout the internal data processing. His idea was to tackle this issue of intentionality.

Bernardo Kastrup:

But I think he still failed because what we mean by conscious thought is not only a reference to something from the outside world that is preserved despite encoding. We mean more by that. We mean a felt comprehension of the data manipulation you are doing. Even if you're still preserving the grounding of your signals within that internal data processing, if there is no felt understanding of what's happening, then there is no conscious thought. There is still only manipulation of signals. The fact that those signals are not arbitrarily encoded doesn't change anything. It's still just voltages, electrical potentials that go here up, and there they go down, and then back again. There is still no thought, I

think. So the issue is even more profound than you suggested because, even if the problem you raised is tackled, I think we still do not have artificial conscious thought.

Michael Egnor:

The nature of intentionality, of course, is that it is a capacity for something to be about something besides itself. There is a quality in nature that is rather suggestive of a cosmic intentionality, and that is, of course, teleology, the idea that teleological processes point to an end in much the same way as intentional processes point to an object. Does that importantly that there is a person behind the natural world, just as, for example, if there is an intentional process, that implies that there's a person thinking about something? Does teleology importantly that the natural world has a person behind it?

Bernardo Kastrup:

That would be entirely consistent with Schopenhauer's view of what's going on, what he called the will. The way you framed the question is very similar to how Schopenhauer himself framed it. His point was, the universe is dynamic. That's are happening. Storms come and go. Volcanoes erupt. Moons gravitate around planets. Animals fight and hunt. Things are happening. Then what he posited was that, for things to happen, there has to be an underlying felt impetus. I'm hesitating to use the word conscious here because Schopenhauer had a very particular denotation for that word that was ambiguous sometimes. But he posited that, for things to happen, even in the inanimate universe, there has to be felt impetus. That felt impetus is the force that triggers the dynamisms of nature, the universe growing, expanding, and things happening on planets. That felt impetus points to a teleology because impetus is an expression of teleology. Impetus, this desire to move, to take a step, could be described as an attempt to achieve something, even if the thing that is to be achieved is not really clear in the mind of the entity that is acting. We can act teleologically even if we don't have explicit awareness of what we are aiming for. Even without that, there is an implicit aim, an implicit teleological attractor motivating that action. For Schopenhauer, that applied also for the entire inanimate universe as a whole.

Michael Egnor:

Wouldn't that be, in some sense, a vindication of the traditional view that human beings are created in the image of their creator?

Bernardo Kastrup:

Absolutely, surely, yeah. I mean, I feel comfortable with you to acknowledge this so unreservedly because I think I know exactly what you mean. Normally I would be more careful, but I do think the human mind, which I would metaphorically describe as a dissociated complex or dissociated alter of the universal mind, inherits from the universal mind by virtue of being a segment of it, that teleological impulse, surely.

Michael Egnor:

Do you believe in life after death?

Bernardo Kastrup:

I certainly believe in consciousness after death. I believe that our core subjectivity, that implicit, innate sense of I-ness that remains undifferentiated ... that being the reason why you still think you are the same person you were when you were five years old, even though everything about you has changed.



Every atom in your body has already departed and new atoms are in. Your thoughts are different. Your emotions are different. Your memories are different. Everything is different about you. But your core subjectivity is the same. That's why you think of that kid as you, even though everything else about that kid was different. I think the same core subjectivity ... It's not only that it survives death. Death happens within it. Life and death happen within that core subjectivity, that undifferentiated witness that is the carrier of all reality.

Michael Egnor:

Do you believe that there is a reality to some aspects of near-death experiences?

Bernardo Kastrup:

Yes, absolutely. I think one mistake that people make is to think of an after-death state as very analogous to the state in which we are now. Right now we are in a state in which the outside world seems to be very objective in the sense that it's not acquiescent at all to our own idiosyncrasies, to our preferences, to our favorite metaphors, to our memories or our life histories, our beliefs, our dispositions. The physical world seems to be very disconnected from that. We do not seem to be able to dress the physical world with the symbolic clothing that reflects our own personality and our own expectations, so to say. We think that everything that is real should follow this rule, this rule of strong objectivity. I think that's a fallacy. It's an implicit expectation that we have no reason to believe in if we are talking about other states of consciousness that may apply after death. I think what you see in the NDE reports is that, although the metaphors vary wildly ... A Hindu may see Krishna. A Christian may see Christ. It is not a coincidence that these words are so alike one another. There is a reason for that.

Bernardo Kastrup:

But, anyway, the details and the metaphors may change a lot. Somebody may see a light. Another may see Krishna. Somebody else may see a dead relative. An atheist would probably see a dead relative because that's the closest thing, the closest symbol of love for an atheist. But if you look past that symbolic layer, that the after-death seems to be very acquiescent to, the reality perceived there seems to be a reflection of ourselves, at least at a superficial layer. If you look past the idiosyncratic symbolic layer to the meaning that lies behind, I think that you will find tremendous consistency across the NDE reports, a consistency of the basic fundamental archetypal elements of that experience. To me, that says that it's probably real in the sense that this is what is expected of all of us, even though it may be a realm that is not strongly objective. It may be a realm that we are able to dress up with the symbolic clothing that reflects our own idiosyncratic dispositions, but it wouldn't be any less real because of it.

Michael Egnor:

David Bentley Hart, who's an orthodox Christian theologian wrote a wonderful book called *The Experience of God*, in which he looked at the metaphysical underpinnings of a number of different religious perspectives, Christian, Jewish, Islamic, Buddhist, Hindu, and he really found very strong threads that tie all of these perspectives together. It's quite remarkable the similarities between these various religious viewpoints. One last question, there has been quite a bit in the popular press lately of scientists who have expressed the opinion that philosophy has become irrelevant in the age of modern science. Do you believe it is important for scientists to know philosophy? Has philosophy become irrelevant?

Bernardo Kastrup:

I think it's very important for scientists to know what science is, and therefore to know what philosophy is. I think scientists who say that science has replaced philosophy do not know what science is, and I think that's very alarming. It's a very alarming situation. Science is the study of the behavior of nature. That's what we can inquire through experiment. We set up an experiment. In other words, we ask nature a question. In reaction to that question, nature will behave in a certain way. That's what we measure. So the question is answered in the form of a natural behavior, a reaction of nature to the question that we posed. That's all there is to it. On the basis of analyzing behavior, we can create predictive models of what the universe will do if this happens, if that happens. These models are the basis of technology. As an engineer, I used these models. At least, I used to use these models every day before I turned into management. That's what science does. It studies and predicts the behavior of nature, and that's all technologists need. They need to know how nature will behave. Then we can build phones, computers, drugs, everything.

Bernardo Kastrup:

Now none of this entails or implies a statement about what nature essentially is. Science cannot know what nature is because that's not what the scientific method inquires into. What nature is, is a question of metaphysics, and it needs to be analyzed through different methods, through the methods of internal logical consistency, conceptual parsimony, and, yes, empirical adequacy. So metaphysics is informed by science, but it is not science. Scientists who say that science replaces metaphysics think that science answers questions of being, and that is a elementary and profound misunderstanding of science, which is alarming when it comes out of the mouths of the spokespeople of science. That aggravates me enormously.

Michael Egnor:

I strongly agree. It's hard to think of a more clueless viewpoint than for a scientist to say that philosophy is irrelevant to science, which itself is a philosophical assertion. In a sense, I mean, what you're describing is a vindication of Saint Thomas's perspective that essence is completely distinct from existence and that metaphysics is the study of existence. Science, to some extent, is the study of the essence of the natural world. But a study of the essence of the natural world will not answer the fundamental questions about why the natural world exists, so metaphysics is essential, I think, for the proper perspective on science and the natural world.

Bernardo Kastrup:

We all hold metaphysical views, whether we are aware of it explicitly or not. We all live our lives informed by some implicit metaphysics. I think it's better if we work this out consciously so we don't live a sort of unexamined life based on assumptions that would not survive critical inquiry by ourselves.

Michael Egnor:

Precisely. I think all a scientist has really told us when he makes the claim that philosophy and metaphysics are irrelevant to science is that his own metaphysics are unexamined, which is not a healthy state.

Bernardo Kastrup:

Indeed.

Michael Egnor:

Bernardo, it is a privilege and a pleasure to have you join us. Thank you so much. I encourage all of our listeners to read Bernardo's work. He's published a number of books. He has some excellent essays and posts in the public sphere. Thank you again so much for joining us.

Announcer:

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