Can Computers Think? (https://mindmatters.ai/podcast/ep99)

Michael Egnor:

Can computers think? Behind the idea of artificial intelligence is the viewpoint that computers are capable of thought, but that viewpoint has been questioned. Join us today with Dr. Bernardo Kastrup as we explore the question, can computers think?

Announcer:

Welcome to Mind Matters News, where artificial and natural intelligence meet head on.

Michael Egnor:

Greetings. This is Dr. Michael Egnor with Mind Matters News. And I have the pleasure of having a conversation today with Dr. Bernardo Kastrup. Dr. Kastrup is a computer scientist and a philosopher who has been leading a modern renaissance of metaphysical idealism. Dr. Kastrup has some fascinating insight into a number of questions about metaphysics and about the nature of the mind and about computation. So, Dr. Kastrup, welcome.

Bernardo Kastrup:

Thanks for having me again, Mike. It's a pleasure.

Michael Egnor:

Certainly. 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 a sense that they can process data, take decisions. And we are increasingly being confronted with the effectiveness of computers in doing precisely that, 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 the 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.

Bernardo Kastrup:

Computers are just tools. I know as a computer engineer, that's 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. And 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 anymore 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. And 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 of a mechanical process. Whereas thought, I believe, is always intentional. I think every thought has an about-ness to it. And 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 who used to work at Nokia Research when Nokia was a very large dominating company some 15 years ago. And, sponsored by Nokia, he did a lot of work on trying to develop, what he called, conscious machines. And the way he went about it was precisely to tackle the point you just raised, the intentionality. And 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.

Bernardo Kastrup:

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 textured. There would be wires connected to each one of this possible combination of qualities represented in the camera image. And he would never mix these signal. So, he would preserve the semantic grounding throughout the internal data processing. And 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're 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. And there is a quality in nature that is rather suggestive of kind of a cosmic intentionality

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 imply 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 imply 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 wheel. The way you framed the question is very similar to how Schopenhauer himself framed it. His point was the universe is dynamic. Things are happening. Storms come and go, volcanoes, erupt moons gravitate around planets, animals fight and hunt. Things are happening. And then, what he posited was that for things to happen there has to be underlying felt impetus. And 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.

Bernardo Kastrup:

And that, that felt impetus is the force that triggers the dynamisms of nature. The universe growing, expanding, and things happening on planets. And 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. And 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 to be more careful, but I do think that the human mind, which I would metaphorically describe as a dissociated complex, or dissociated outer 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 subjective, it is the same. That's why you think of that kid as you, even though everything else about that kid was different.

Bernardo Kastrup:

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 a 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, 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.

Bernardo Kastrup:

And 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're see in the NDE reports is that although the metaphors vary wildly, a Hindu may see Krishna, a Christian may see Christ, and 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 state seems to be very acquiescent to the reality perceived there seems to be a reflection of ourselves, at least at the superficial layer. If you look past that idiosyncratic symbolic layer to the meaning that lies behind, I think you will find tremendous consistency across the NDE reports. A consistency of the basic fundamental architectural elements of that experience. And, to me, that means, that says that it's probably real in the sense that this is what is expecting 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. And it's quite remarkable the similarities between these various religious viewpoints.

Michael Egnor:

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, and 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. And, 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 pose. And that's all there is to it.

Bernardo Kastrup:

On the basis of analyzing behavior, we can create predictive models of what the universe will do if this happens, if that happens. And these models are the basis of technology. As an engineer, I use 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. And 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 think what you're describing is kind of a vindication of St. Thomas's perspective that essence is completely distinct from existence. And that metaphysics is the study of existence and 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 the metaphysical views, whether we are aware of it explicitly or not. We all leave our lives informed by some implicit metaphysics. And I think it's better if we work this out consciously, so we don't leave sort of an examined 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:

Yeah, indeed.

Michael Egnor:

Bernardo, it is a privilege and a pleasure to have you join us. And thank you so much. And 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. And, again, thank you so much for joining us.

Announcer:

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