

MARK SIDERITS

00:16.42 Ok. Making his way to the podium is our third respondent, Robert Van Gulick who is Professor and Chair of Philosophy at Syracuse.

ROBERT VAN GULICK

00:16.58 Is it on now? Yes, good. Ok, thanks. Yeah, well, it's the bane of the existence of having a name that starts with V in an alphabetically ordered world that I go last, which is batting clean up. In part because many of the things I'm going to say to you, you've just heard from Evan. And I'm gonna say them again. So maybe that either means they're right or at least you'll have a second chance to hear them. There'll be some differences, though, as well.

00:17.24 But certainly some things about autopoiesis in emergence, which we're both picking up from Bill Waldron's paper are gonna come up in mine. I don't know much about Buddhism. I don't know much

about Asian thought. I approach this panel as-
from my perspective as a kind of mainline,
analytical philosopher working in a naturalistic,
scientific view of mind, trying to see what it is
from that perspective that resonates or meets me
from what he had to say.

00:17.50

And I'm gonna talk about three aspects. The
notion of dependent arising, the notion of
circular causation and then thirdly, how those
might apply to the self. And some of the ideas,
again that come up in Evan's. So, first, let's
talk about dependent arising. This fourfold
slogan that Bill gave us is - when this is, that
comes to be; with the arising of this, that
arises; when this is not, that cannot be; with
the cessation of this, that ceases to be.

00:18.28

So we get this kind of dependence. Now, how does
that look from the perspective of mainline,
naturalistic, scientific philosophy of mind?
Well, the perspective I think that's probably the

plurality position is what's come to be called non-reductive physicalism. It's been the view since about the mid-1970s, would you say Ned?

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Within our history - the history of those of us who are in our 50s, it was a kind of zeitgeist change that took place about 30 years ago. So, non-reductive physicalism is probably not the majority- if not the- certainly not the consensus view, but it's probably the plurality view.

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What it does is combine two things. One is an ontological physicalism - a notion that in some sense, everything that's real is - in some sense yet to be explained - physical or depends on the physical. We're talking about dependent arising. If it's real, somehow it depends on the physical. Yet, but there's a non-reductive element here in that there's a rejection of the notion that physics or the physical sciences provide us anywhere near the full panoply of ways we need of knowing and understanding the world.

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The concepts, the frameworks, the theories, the modeling tools that are provided us by those particular sciences are very valuable and useful in their way, but they're just a small fragment of what we need for understanding the physically realized world or the physically world in all its multiplicity of complexity. So, standard example used by everybody is economics.

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Every economic transaction is in some sense, physical. I can't pay \$20 without handing you some bills or giving you a credit card, writing a check, putting a few keystrokes that move money from my bank account to yours through cyberspace and yet, nobody would think that physicists are the people to consult about how to model economics or to think about the economic reality of the world.

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That what's gonna happen between interest rates, exchange rates, trade balances, et cetera. That's

not their line of work. So, it's ontologically physical, but it's not conceptually or representationally or theoretically within the province of the physicists or the physical scientists. And this isn't just true of economics, it's true of psychology, it's true of biology, it's true of literature, it's true of, perhaps, religion, it's true of morality, it's true of poetry. It's all these multiple ways we need of understanding and embracing and encountering the world, although the non-productive physicalist still wants it all to be at the bottom level, somehow physical.

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And then the challenge comes along. Somebody like Jaegwon Kim, professor of philosophy at Brown will give his presidential address to the APA, calling it the myth of non-reductive physicalism. And say, hey, if you really want to be a physicalist, you gotta be a reductionist. This notion that you can be a non-reductionist and still be a physicalist isn't going to work.

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So, people have spent a lot of time trying to figure out what's the right way to gloss the dependence relation. How do you explain how everything somehow depends on the physical, while still keeping your non-reductive sort of scruples? And people have tried a variety of notions. One is supervenience. That somehow everything that's real supervenes on the physical. So, standard example, painting.

00:21.37

If I go over to the Met like I did yesterday and look at some wonderful painting, like Rembrandt's self-portrait on the wall, it's a collection of pigment put on a canvas. And any other canvas that had exactly the same distribution of pigments would have whatever aesthetic qualities it did. If this one is beautiful and thought-provoking, that one would be beautiful and thought-provoking.

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But somehow, the aesthetic properties of the painting don't reduce in some obvious sense to the physical one. Yet they supervene on it. If you keep everything physical the same, you're gonna keep all the aesthetic things the same. Well, there's problems with supervenience. So, I won't go into them, but people have sort of realized that probably isn't good enough dependence relation.

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So, they've tried emergence. And emergence is certainly a notion that people have been very attracted to. And in fact, there was a special version of the Journal of Consciousness Studies that Michael and I both had papers in. Three years ago or so? I mean, trying to look at emergence as a way of trying to get how consciousness might relate to the physical. And there's a lot of easy, sort of unproblematic notions of emergence.

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Complexes have lots of properties that their parts don't have. The parts of the whole are often radically different than the properties of the parts. There may be no easy way to predict in advance what the properties of the wholes are gonna be. But, they're still pretty well behaved. What people get worried about is when you start talking about properties of wholes or complexes that somehow are de novo. They're new. They're not somehow derivable, even in principle, or explicable from the properties of the parts.

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They just come into the world, as it were, by new fundamental laws or by sort of fiat and in particular, they're concerned with whether or not those new properties of wholes could somehow muck around and change the underlying laws of causality that govern the micro-structure. And that's what some people want. That's what Bill Hasker wants. I mean, he wants to be able to take because he thinks we can need for free will. And maybe Teed wants that, too.

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But most naturalists draw back in horror at that notion. They don't want to go quite that far. So, there's a way a kind of dilemma that you can see posing here - it's a dilemma about causation. I mean, Bill talks in his paper a lot about patterns. And you can say, oh, all these wonderful patterns and if I'm a non-reductive physicalist I want to find ways to grab hold of the patterns and see all those patterns in the world because they're often very predictive and they're often the ways I have to use to get my cognitive apparatus to latch onto the world to give me some kind of hold or handle on how to manipulate or grapple with it or encounter it.

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But, is the pattern something real over and above its realizations. If realization - another notion that people have been very much attracted to as a way of understanding everything real is physically realized. So you've got a pattern. Insofar as that pattern has any existence in

space and time, it's because it's realized. Where is it realized? It's realized in physical stuff.

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Now the question is, is the pattern ever something over and above its realizations? When you've got a concrete realization, like Evan's complex systems, you've got all those parts going around in his wonderful circle there and somebody could say, well, if I understood all the little parts, including how they're all arranged in this very complex system, I got a complete explanation. I have micro-determination.

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The parts are running the show. The pattern is just an epiphenomenon. The pattern is just a useful way of talking about it, but the pattern isn't something new that's been added to the furniture or the world and it doesn't, in particular, do any new causal work. So that sort of takes the wind out of the sail of the kind of realist. It looks like it's going back down

toward a more reductionistic picture, at least on the ontological level.

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Then there's some who want to come along, say, "No, no, there is downward causation. Actually, when you get these new patterns, they can go in and they can violate the laws of the micro-structure. They can actually override the laws that govern the physical world." And then the naturalists, you know, they get really scared. And me, I get scared. I don't want to go there. There lie creatures of darkness.

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Not that it's illogical or inconsistent, but it's not what fits our kind of scientific worldview. So the problem is that dilemma. How can the patterns really be doing something without sort of violating the underlying physical causality? Well, here's a suggestion and part of it's already been suggested in Owen.

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In Evan, excuse me. You don't have to violate the causal laws. What you do is select among them. The parts have many causal potentials, but at any given moment only some of them are being activated. And what the global structuring does is determine which of the causal powers actually come into play. So think about what happens in a molecule.

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You get these lovely things in intercellular communication. You get a receptor on a membrane then it sticks down into the cytoplasm and it's got all these phosphor-related things that attach onto it and there're big scaffolding complexes and there are large, turned-around molecules, proteins. And what they do is allow certain kinds of enzymatic (ph) reactions to take place. They facilitate some and inhibit others.

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So, a lot of the possible reactions are never taking place. Only a small subset is being selected for. So, part of what the pattern is

doing is not overriding the causality, but selecting and choosing from within it. So, ok, so then the non-reductivist comes, the hard-nosed person says, "Yeah, yeah, but that's still just a particular scaffolding, a particular molecule. It's all micro. You could tell the whole story." And that's true.

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Oh boy, we're having a hard time. So you come back and here's the second part of the answer. These patterns are not random. These patterns are extremely robust. They're self-sustaining, they're self-creating. And in fact, I venture the following: If you were to go into what- take the philosopher's favorite device, possible world machine, and start looking at lots of nearby possible worlds where the initial physical conditions were different and you can even change the physical laws a lot -

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some of these patterns, especially the patterns that are involved with self-organizing systems

and mindedness, would keep popping up. So they're not really dependent on the particular nature of our physical world, either in terms of its boundary conditions or even its laws. But they're ones that would show up in a wide range of things. How wide is a big issue. Because this comes into the cosmic fine-tuning argument.

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If you tune the universe the wrong way, you don't get this. Ok. So that's so much about non-reductive physicalism. How does that connect up with circular causation? An idea that Bill talked a lot in his paper, he sort of alluded to - he didn't use the term so much, but Evan talked about it in his, as well.

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Well, I think the right way to think- He's got two different notions here and I think it's worth sorting them. One is that you take a complex system like a brain and it changes over time. Its state changes, so it receives a stimulus or an input and then it modifies itself and then it

gets a stimulus at a later time and it modifies itself again.

00:28.11 And how- what state it takes at any given moment, is not just a function of how it's being stimulated, but about its history and how the network- Say if we think of the brain as lots of neural networks, how those neural networks are being reorganized and synaptic connections being changed all the time. And that certainly seems true.

00:28.27 But it's not terribly exciting in a certain sense because even a rock does that. I mean, the current state of a rock is a function of what you're doing to it, plus whatever changes have been left there by its history. Now, maybe the Buddhists say, yes, exactly, just like a rock!

00:28.45 But again, I'm viewing this from the perspective of a naturalist and I don't want minds to be like rocks. Those are different things as far as I'm

concerned. Very different things. And anything that suggests they're close together makes me worried. So, I want to think about how another way which this might be and I think it comes up with this notion of reciprocal causation.

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We've got two things that are in a dynamic interaction and this one influences this one and this one back and they go. And it's really not a circle, it's a spiral - they're moving up. So think about what goes on in evolution. You get predator-prey relations or flower-pollinator relations, right? I mean, think about flowers - the most wonderful things. We have all these wonderful floral shops here on Broadway with all the people trying to put these hyacinths and narcissus and things in the window.

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Well, of course, they didn't exist 60 million years ago until pollinators came along. Only when pollinators came along did you need flowers and you know all these scents and all these colors

and everything. So, pollinators and flowers evolved together. I mean, it's much nicer than predator and prey. That seems so hostile.

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But, it's a good example of where you got two things that are in a dynamic interaction. And where you are in one state involves very much the fact that each has brought the other into existence. So it's this kind of self-producing interaction and I think this takes us even further because there was a hint, I think, in Evan as well that some sense maybe when you get these non-aggregative systems, the parts don't really have a reality independent of the whole.

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Now here's an example. How many of you are long-married couples? Or part of a long-married couple? Not too many of you, I don't know what's happened to the marriage rate here in New York. Ok. I'm a part of a long-married couple, so part of what happens and I think it's a good example- When we're talking about understanding - and I

like to talk in terms of understanding - there's a nice pun in the word understanding.

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Because we can have an understanding between us, but if you also think about the word understanding, you'd like to do etymologies in the Heideggerian sense, understanding is the same root as substance. They're the same words. What stands underneath, what holds something up. And when you've got an understanding in a long-married couple, in a certain sense you are a certain person.

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You're a certain person with your spouse, you're a certain person with your kids, you're a certain person with your parents, you're a certain person with your colleagues - you have all these roles you play and actually it's not just that your behavior- You almost become somebody different. And in a way, in a long married couple, like Susan and Ned here, they understand each other. Not only in that they can predict each other, but

in a certain sense, she is who she is when she's with him and he's with him when she's- And they allow each other to be, they support each other as being particular people in that particular context.

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So, I think that's a good example of the kind of reciprocal production of two different things that have their identity only in the dynamic relationship between them. Ok. Last, third point then is this question about selves. How can we take this notion of reciprocal circular causation and apply it to the problem of the self?

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Well, I think the notion of self-understanding systems is the way to go. Now, by self-understanding system, I have in mind two different things. They're related, but they're different. One is, as Evan was talking about, when you have a system that is self-organizing, self-regulating and autopoietic - this word that's come back into much use through Varela,

but I first met it in the 19- early '70s, late '60s when it was introduced by Conrad Lorenz, who was borrowing it from the embryologists.

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A system that makes itself - poeisis is the making, the creative making of something, the same root as the word for poetry. An autopoietic system brings itself into existence and moreover then it regulates itself. There is no external regulator. It's moving itself through a very dynamic cascade of changes, very much like your conscious mind. When you're thinking your way through a philosophical paper. When you're writing a poem. When you're planning dinner.

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When you're reliving the events of the day at the office. You're under the control of that forebrain, perhaps, that Professor LeDoux talked about. But you're moving yourself. And each conscious state, which is this globally integrated unity. I mean, the things that have the memories of what happened in the office or

the sounds of particular words while you're writing a poem are located in the same brain regions they are when you initially hear them.

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And now they're being reactivated and combined into (unintell) complexes. And the forebrain is doing some control work, but it's not like the forebrain is running it completely. What's happening is each global state at a given moment, which consists of the substrate of your experience at that moment, is what's producing - in coordination, perhaps with working memory - the next global state, which corresponds to your next experiential state and the next experiential state.

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So, each experiential state, which itself is a very complex, organized, unified structure, is the author or the creator of the next state. Well, where is the self in all of this? Is it the forebrain? Is it working memory? Well, I don't think it's best to think about it in terms of

some special module of the brain. Rather, the self is an emergent feature of this whole complex, of which the working memory is part and so (unintell) always tied together.

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Now, I think it could either be, and perhaps it's both, a real causal locus of control. So it really is real. It's not a no-self view, but it's also the perspective of the subject, who is having all these awarenesses. The agent who is engaging in all these actions. The carer who cares about all these things. So the self is the locus of perception, the locus of action, the locus of concern that is, as it were, the virtual position point from which all this experience spins.

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I mean, as Dan Dennett likes to talk about the self as the center of narrative gravity. My own inclination is more realistic than his, but I think in that sense, to be more realist about the self because it's also a causal center, but it

also has this kind of role. And the two roles that it is the center of narrative gravity and it's also the locus of control, I think, fit together. And that's where we have to look to sort of pull them together in one way.

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Ok. Let me end with something different. You've listened to a lot of prose for the last hour and thirty one minutes. And I'm one of the people who was talked- Where's Paul? When we were talking at dinner last night- I think you were talking about me as the person who writes poetry on the side, so I thought I'd end with a poem for you. Because you've listened to a lot of prose, as I say. And it's relevant because it's about emergence.

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And maybe it's about autopoiesis. It was written as one of a series of poems trying to think about memory from somewhat different perspectives than our normal notion of memory. It's called "The Moth's Cocoon." And I think I can do it. I'm a

little nervous. I'm not used to giving poems in front of this many people.

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After many weeks, the moths emerged from their cocoons and dried themselves in the sun, awaiting night to fly off in search of sweet nectar and fair mates. But on that afternoon as they unfolded their new forms, did they remember many-legged life or had old images been shed like outgrown skins.

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Did membranes stretch so thin in making weightless wings still keep some feel of the fat, round earth-bound body they had been or was all trace of shape washed out in the glare of flying through midair - free in space to move as only moved before in dreams.

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Perhaps it is the caterpillar, not the moth that remembers what it was and what its other nature is, already as it climbs and undulates among the leaves. Maybe in some confused and cloudy way,

the worm recalls what it is yet to be and dreams
the flight that only seems to set it free. Thank
you very much.

APPLAUSE

MARK SIDERITS

00:37.01 Thank you. Do you want to- You don't want to. Ok.
We've got about 25 minutes left for general
questions from the audience. Since our target
essayist is proposing to continue to stand as a
target for everyone else.

00:37.27 So, how shall we do this?

ROBERT VAN GULICK

00:37.32 There are lot of pink cards coming up.

MARK SIDERITS

Let's collect some cards. Chris? Stephen wants
one.