Dear Ned Block:

As a philosopher of mind, you have argued that cognitive science must distinguish between functional states and consciousness. In your recently published interviews by Robert Lawrence Kuhn on Closer to Truth, you admitted that while you believed 20 years ago that it was 50-50 whether materialism or dualism is true, you now believe that it is closer to 90-10 because “it is looking more and more like consciousness is a biological phenomenon.” But for consciousness to be explained biologically, it must have a function in the brain, and that is still inconsistent with reductionistic materialism because such a causal role would require at least a dollop of emergentism. That seems to be implicit in your distinction between phenomenal consciousness and access consciousness because it assumes that we can know about consciousness because phenomenal properties are immediately present. But that is not compatible with materialism or any scientific explanation of everything in the natural world that is unified because all the regularities found in it can be reduced to regularities discovered by the basic branch of science. To assume that the immediate presence of phenomenal properties has a function is to abandon that goal and accept emergentism, and I am writing to you because I believe that you would like to avoid that consequence. There will soon be a way for science to have a fully reductionistic explanation of consciousness and functional states in which consciousness is not an efficient cause of any event, that is, epiphenomenal, but nonetheless make a profound difference in what happens in the natural world. This claim is part of a prediction about a revolution in science that may seem outrageously unlikely. But you will find the reasons for it are surprisingly compelling.

I predict that this scientific revolution will be triggered by a discovery soon to be made by physicists that solves the problems

of modern physics. It's the kind of discovery that people looking back will ask why no one discovered earlier, and the reason is that it is hidden from physics by its method. Physicists are trapped in a mathematical box, and discovering how to think outside of it is what will solve the problems of modern physics.

Those problems will be solved by the discovery that space is a substance that interacts with matter. This ontological theory has been hidden from physics for centuries by its assumption that laws of physics are the deepest possible knowledge about the natural world. The secret sauce that has made physics so successful for centuries is the use of mathematics to formulate its laws. But that has trapped physicists inside a box and caused intractable problems in modern physics, and physicists will begin to think outside that box when they give up the assumption that mathematics is known by a faculty of rational intuition and see how the truth of mathematics can be explained by its correspondence to the world. Assuming that the natural world is constituted by substances with powers that enable them to interact with one another as they endure through time, scientists will know that interactions of substances constitute change, and since all the regularities generated by interactions of space and matter are quantitative, they will infer that space and matter constitute the natural world because that is the best explanation of the "unreasonable effectiveness" of mathematics in discovering laws of physics. Furthermore, when they discover the more specific powers by which interactions of space and matter generate all the regularities described by laws of physics, they will solve the problems of modern physics, and that will confirm the reduction of physics to ontology.

This ontological discovery will reveal that matter exists as many particular bits that coincide with parts of space, and the way that interactions of space and matter generate the regularities described by laws of physics will reveal a kind of efficient cause

not recognized by physics. I call them geometrical causes because they are composite bodies whose unchanging structures constrain what happens by physical causes. Recognition of geometrical efficient causes will give biologists a more complete understanding of the cause of evolution, and this will enable them to reduce functional explanations to ontology because efficient causes discovered by the basic branch of science will explain all functional traits that evolve. They include the functional systems described in cognitive science because biologists will discover that a series of inevitable of stages of evolution, caused by a series of levels of geometrical organization, brings beings like us into existence on suitable planets throughout the universe. And since the level of geometrical organization responsible for the stage at which the mammalian brain evolves will reveal that the function of its basic structure is to serve as a faculty of imagination, neural scientists will be able to use the homology between the anatomically distinct hindbrain, midbrain, and forebrain of the reptilian brain and thalamocortical circuits in the mammalian forebrain to figure out how the mammalian brain serves as a faculty of imagination.

This explanation of how the mammalian brain works combined with another consequence of the discovery that bits of matter coincide with space will enable ontological scientists to explain how consciousness is part of the natural world. Since matter is a substance, a purely phenomenal way of existing in itself can be part of its essential nature. That is, the existence of a qualitative property is what it is like to be a bit of matter in the world—even the simplest bits, though such “qualia” are likely to be rather primitive. But since bits of matter coincide with parts of space, their species will be distinguished by the spatiotemporal structures of their coincidence with space, and it is possible for a single bit of matter to have a kind of spatiotemporal structure that is complex enough to constitute the configurations of sensory

qualia in phenomenal space that exist when we perceive the natural world. If the mammalian faculty of imagination is responsible for this structure, there is one and only one bit of matter helping constitute the brain that fills this bill. It is the species of field matter that mediates electromagnetic interactions among ions accelerated in the firings of neurons throughout the brain. Their firings impose a spatiotemporal structure on this field matter (called the electromagnetic field in physics), and matter with a phenomenal intrinsic property can explain the configurations of sensory qualia in phenomenal space that are immediately present in perception and psychological states of other kinds. In sum, consciousness will be explained as what it is like to be a bit of field matter helping constitute the mammalian brain.

This is a form of panpsychism. But it is such a modest form that it entails epiphenomenalism, and since consciousness is just what it is like to be a particular bit of field matter helping constitute the mammalian brain, the immediate presence of phenomenal properties can't cause anything to happen that is not fully determined by efficient causes. That means that consciousness cannot be explained biologically as the function of any trait that evolves in the spatio-material world. And that poses a problem for proponents of panpsychist epiphenomenalism because they will have to explain our knowledge of consciousness. There is a way to explain how we know that we are conscious because there is an illusion inherent in consciousness, and it enables consciousness to make a difference in what happens even though consciousness is not an efficient cause of any event.

The unity of consciousness makes it seem to us that we are inside consciousness. Since we are mammals, everything we know and describe seems to be a phenomenal property, so we naturally assume that the immediate presence of phenomenal

properties is what causes our knowledge of them. This is false. But it is not just a belief that we can give up when we learn that it is false because it is an illusion, like an optical illusion, that persists after recognizing that it is false. Being located in a phenomenal world is just what it is like to be consciousness. I call it the illusion of intuitionism because what is false about it can be described as the belief that knowledge depends on objects given in a faculty of intuition.

The illusion of intuitionism causes our knowledge that we are conscious, but it is not obvious how because it is a historical cause. Ontological scientists who recognize the illusion inherent in consciousness will explain the history of Western philosophy as an exchange of metaphysical arguments that leads to the discovery that beings like us are conscious, though it is discovered in in the problematic form of mind-body dualism. Descartes' argument, I think, therefore I am, is a description of the illusion of intuitionism, and since it is caused by the unity of consciousness, unity was essential to the substance he called mind. He discovered consciousness when he recognized that the world external to mind has a divisibility that is opposite to the unity of consciousness. The discovery of this ontological incompatibility was the discovery of consciousness because it was the discovery that the unity of consciousness would have to be constituted by substances in a radically different way from the "unity" of a world of objects that exist outside one another in space. That made it impossible to explain how mind and body interact, and since physicalism cannot explain how complex phenomenal properties are part of the natural world, what makes it possible to solve the mind-body problem is the discovery that space is a substance that interacts with matter.

This historical explanation of how we know we are conscious implies that beings like us in other non-Western civilizations did

not know that they were conscious. Though they explored altered states of consciousness, they didn't exchange metaphysical arguments, so they had no occasion to describe the illusion of intuitionism. There was no way for themto discover the ontological difference between consciousness and the natural world. This is controversial in the age of multiculturalism, but it is just one of many surprising consequences of the discovery that I predict will reduce physics to ontology and trigger a scientific revolution. But this is enough to show how consciousness can be explained as part of the natural world about which we know even though what it is like to be a mammalian brain is not an efficient cause of any event in the brain. That requires us to distinguish between consciousness and reflection, by which I mean the knowledge that language-using mammals have of the brain states guiding their behavior as part of the process of guiding it, and I hope you find my argument provocative because that is, I believe, a deeper and more complete explanation of the difference you are getting at by distinguishing between access consciousness and phenomenal consciousness. And because it means that science will have a unified explanation of everything in the natural world.

This unlikely prediction is defended in detail in a trilogy called, Naturalistic Reason, that I am self-publishing as I send you this message. The first volume, Unification of Physics, describes ontological mechanisms that explain all the laws of physics in quantitative detail. The second volume, the Unification of Science, shows how the ontological reduction of physics reveals a kind of efficient cause, not recognized by physics, that works together with physical causes in a way that enables all the specialized sciences to explain completely the regularities they study and discover the series of inevitable stages of evolution that brings beings like us into existence. Using the discovery about space interacting with matter to explain how consciousness is part of the natural world, the third volume, the Unification of Science and

Philosophy, shows how the illusion inherent in consciousness will lead to the discovery that Western civilization is a stage in the evolution of life, the metaphysical stage, that follows the stage represented by other civilizations.

There may be incomplete or mistaken arguments in this trilogy. But I am confident that the discovery about space will cause a scientific revolution, and since I know this sounds too good to be true, let me say something about its origin and scope. I have been working on this argument, pretty much on my own, for over 45 years, including 30 years teaching philosophy at American University and more than 20 years since retiring from teaching. As a philosopher, I have written my detailed argument with a rigor that justifies expecting it to stand up to scrutiny in the rational pursuit of truth. I learned much from you, and I am writing to you and a few others because I want to make what I have discovered public. I am about to turn 83, so you needn't worry that I am merely boasting in an attempt to advance my career. Making what I have discovered public is, I believe, my duty because I have been given the leisure and privilege of spending my life in this exceptionally fulfilling way.

Even those who believe in the rational pursuit of truth will be reluctant to take up a detailed all-inclusive explanation of the natural world in three volumes, so I am offering a simpler way of learning more about it. An executive summary of the argument is presented in a short (150 page) book titled Sapere Aude that I am also self-publishing now. I am including a free Amazon link to an eBook version of it. (See below.) And there is more information about this argument at natReason.com, including an introduction to the trilogy, a Table of Contents for it, a bookstore, and more information about me. I would be happy to answer any questions you may have and very grateful to learn about any problems that

you think casts doubt on it. You can reach me personally at phillphscribner@yahoo.com.