

Dear D.C. Dennett:

You have defended the possibility of explaining consciousness without postulating the existence of anything but what is described by physics by arguing that it is a mistake to believe that it is a “Cartesian theater” in we watch what the brain is doing. Your critics have long rejected your position on consciousness because it denies the existence of what they are talking about. You have drawn attention to many fascinating brain mechanisms and used illuminating metaphors to convey how they work, for example, explaining attention as the result of groups of neurons competing for “fame in the brain” rather than as “television in the brain.” And I believe that you are close to the truth—so close, in fact, that a relatively minor amendment in your argument would convince your critics that there is no “Cartesian theater.” And with the help of a discovery soon to be made by physicists, they would be forced to accept your explanation.

Your critics are so confident of knowing that they are conscious that they see you as holding that consciousness is just an illusion. You steadfastly continue to defend your view because you are just as confident that brain mechanisms are responsible for what they claim to know about consciousness. I believe that your critics rightly deny that consciousness is an illusion. But I also believe that you are correct in insisting that what they claim to know about consciousness is caused by brain states. And there is a way that you could convince your critics that there is no Cartesian theater. You would have to admit the existence of consciousness, but if you explained how it is part of the natural world in a way that implies that it is just an epiphenomenon of the brain, your critics would be forced to admit that you are right about brain states causing what they say about consciousness. Nor is this just a logical possibility. Physicists will soon make a discovery that not only solves the problems of modern physics but also triggers a

scientific revolution in which the existence of consciousness will be explained as a property of the brain that cannot cause anything that happens in the brain.

Though the prediction of a scientific revolution is, admittedly, hard to believe, I can show how it is justified. But first, let me point out something about consciousness that your critics may not have mentioned. There is an ontological obstacle to a physicalist explanation of consciousness that is relevant in understanding what I am getting at.

What your critics mean by consciousness is something whose unity cannot be explained as part of the physical world. When we perceive the natural world, what is immediately present are configurations of sensory qualia in phenomenal space, for example, many colors of various kinds that appear to have spatial relations to one another. Each color is a simple qualitative property that must be intrinsic to whatever entity has it because its kind cannot be defined without pointing to an instance of it. Simple qualitative properties like that could exist in the physical world if they were intrinsic properties of elementary particles, because all that science knows about the particles is how they move and interact. By the same token, however, physical particles cannot explain the configurations of color qualia we have in perception. The phenomenal intrinsic properties that define kinds of qualia are all immediately present to us at the same time, whereas whatever phenomenal way of existing in themselves that physical properties may have is something that they necessarily keep to themselves.

So, consciousness has a unity that keeps a science based on physics from explaining how it is part of the natural world. But after a discovery soon to be made in physics, it will be possible for science to do that, and it will be shown that you are correct about

brain states causing everything we know about consciousness. There is no Cartesian theater in the brain.

I predict that the problems of modern physics will be solved by the discovery that space is a substance that interacts with matter. This possibility 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 it has trapped physicists inside a box, and they will not solve the intractable problems in modern physics that mathematics has caused until they wonder about its “unreasonable effectiveness” in discovering laws of physics and begin to think outside that box. When they question whether mathematics is known by a faculty of rational intuition, they will discover that its truth can be explained by its correspondence to the world because they will consider the possibility that the natural world is constituted by substances that endure through time. Assuming that change is what happens as they interact with one another, physicists will infer that space and matter constitute the natural world because their interaction can generate only quantitatively precise regularities and that explains the “unreasonable effectiveness” of mathematics in discovering laws of physics. That mathematical truth depends on correspondence to the natural world in this way will be confirmed in a compelling way when physicists discover specific powers by which interactions of space and matter generate the regularities described by laws of physics and the problems of modern physics are solved.

I predict that this ontological discovery by the basic branch will trigger a revolution in science because 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. Recognition of these geometrical efficient causes will give biologists a more complete understanding of the cause of evolution that enables them to show that a series of inevitable stages of evolution, caused by a series of levels of geometrical organization, brings beings like us into existence on suitable planets throughout the universe. 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 naturalistic imagination. That discovery will enable neural scientists to use the homology between the anatomically distinct hindbrain, midbrain, and forebrain of the reptilian brain and three distinct thalamocortical circuits in the mammalian forebrain to explain how the mammalian brain serves as a faculty of imagination for guiding behavior.

That 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. I mean that 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 they 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 is 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 that means that you are right to deny that there is a Cartesian theater in the brain. Consciousness is just what it is like to be a particular bit of field matter helping constitute the mammalian brain, and the immediate presence of phenomenal properties can't cause anything to happen that is not fully determined by efficient causes. Everything we know and say about consciousness is caused by brain states.

But that poses a problem for defenders of your position because they will have to explain how we know that we are conscious. And there is a way to do that because the problem posed by epiphenomenalism points to an illusion inherent in consciousness that can cause knowledge of consciousness.

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 what it is like to be conscious. 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. That illusion is what you are trying to make

your critics recognize by pointing to the many subtle ways that brain mechanisms are responsible for aspects of what they say about of consciousness. And you are right on target when you describe the mistake as believing in a Cartesian theater in the brain. Your critics assume that they know that they are conscious because phenomenal properties are immediately present. And since they are, in fact, conscious, they are justified in complaining that you are trying to explain consciousness away. But you are not claiming that consciousness is an illusion. You are, rather, explaining how they are mistaken about consciousness because they fall for an illusion inherent in consciousness. Your critics assume that the immediate presence of phenomenal properties is what causes their knowledge of them, like watching a movie, and that big mistake is what causes all the confusion about consciousness.

To put it differently, your critics are mistaken because they fail to distinguish between reflection and consciousness. You can explain reflection as knowledge that the mammalian brain has about its own states that depends on the use of language. That distinguishes reflection from consciousness. But you go too far when you fail to recognize that consciousness exists, and when you admit that there is such a thing as consciousness, you will be able to explain how we know that we are conscious.

Surprisingly, knowledge of consciousness has a historical cause. Recognizing the illusion inherent in consciousness, it is possible to explain the history of Western philosophy as an exchange of metaphysical arguments that leads to the discovery that beings like us are conscious. But it occurs in the problematic form of mind-body dualism. Descartes' argument, I think, therefore I am, was a description of the illusion of intuitionism, and since it is caused by the unity of consciousness, he insisted that 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. That is the ontological incompatibility to which I pointed at the beginning of this letter. So the discovery of consciousness was the discovery that its unity is constituted by substances in a radically different way from the unity of a world of objects that exist outside one another in space.

This historical explanation implies that beings like us in other non-Western civilizations did not know that they were conscious. They explored altered states of consciousness, but since they didn't exchange metaphysical arguments, they had no occasion to describe the illusion of intuitionism. There was no way for them to discover the ontological difference between consciousness and the natural world.

This historical explanation of how we know we are conscious is just one of many consequences of the discovery that I predict will reduce physics to ontology and trigger a scientific revolution. It also implies that Western civilization is a distinct stage in the evolution of life on suitable planets throughout the universe, which culminates in beings like us knowing that they exist necessarily. When ontological scientists make this discovery, they will find that they have a cognitive power that enables them to know Reality behind Appearance, and ontological science will become naturalistic reason.

This 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 by reading your books, 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 it public is, I believe, my duty because I have been given the leisure to enjoy a life spent 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 philliphscribner@yahoo.com.