

Dear Sam Harris:

Your series of debates with Jordan Peterson about the nature of the good nearly four years ago gave me hope for the rational pursuit of truth despite the growing incoherence of American culture. It spurred me to make public something I have discovered that I believe will interest you. As a naturalist, you deny that anything transcends what physics has discovered about its nature, while Jordan Peterson is an individual psychologist who uses a Jungian appreciation of the wisdom in religion and myths to point to something about goodness that seems to transcend the natural world. Neither of you claims to have knowledge of something that exists outside space and time, and there is an explanation of goodness as an aspect of the world that science can discover that would draw you into agreement about morality and why we ought to be moral, if both of you knew about it. It also explains free will in a way that a naturalist like you could accept. I believe that we are on the brink of that discovery, I am writing to ask you to consider my argument defending that prediction.

This explanation of the nature of the good depends on a scientific revolution that will be triggered when physicists make a discovery that solves all the problems of modern physics. That is not as unlikely as it may seem, because it is a discovery about space and we know that it exists. It is the discovery that space is a substance that interacts with matter, and that fact is hidden from physics 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 also causes all the seemingly intractable problems in modern physics, so physicists are trapped inside a box. They will begin to think outside that mathematical box when they abandon the assumption that mathematics is known by a faculty of rational intuition and

recognize that its truth can be explained by its correspondence to a world constituted by two substances, space and matter enduring through time. Since interactions of substances with their essential natures can generate only quantitatively precise regularities, scientists can infer spatio-materialism as the best explanation of the “unreasonable effectiveness” of mathematics in discovering laws of physics. This discovery will be confirmed by discovering powers that enable interactions of space and matter to generate all the regularities described by laws of physics, because that will solve the problems of modern physics.

Ontology is the study of existence, and since substances are the cause of what exists, this discovery will reduce physics to ontology. These ontological causes entail a kind of efficient cause, not recognized by physics, called geometrical causes. Since they work together with physical causes, their discovery will trigger a scientific revolution, and by filling all the explanatory gaps in specialized sciences, it will explain the nature of the good. Geometrical causes are at work in nature because space gives the matter that helps constitute atoms (and bodies composed of atoms) the power to impose their unchanging geometrical structures on what happens by physical causes, the kind of efficient causes that is recognized by physics. That will clear up puzzles about the nature of entropy in thermodynamics in a way that gives the life sciences a deeper and more complete explanation of evolution than Darwinism. Biologists will be able to explain why life evolves on suitable planets throughout the universe, and they will discover a series of inevitable stages of evolution that bring beings like us into existence.

This discovery about evolution will explain the origin of life, and since that reveals its nature, it will show that goodness is an essential aspect of the nature of life. Life begins when geometrical causes acquire the power to go through reproductive cycles on

their own by choosing between incompatible goals, such as growth and reproduction. Life is basically a choosing machine, so what matters to living organisms is choosing goals that are good over those that are bad. This explanation of the nature of life also implies that there are four forms of life. As each form of life evolves, it gives rise to a new form of life in basically the same way that the first form evolves from nonlife, except that it is a choosing machine on a higher level of geometrical organization. First, there are prokaryotic cells, then eukaryotic cells, followed by multicellular organisms, and finally there are spiritual organisms. By spiritual organisms, I mean groups of language-using mammals whose only body is all the multicellular animal bodies of its members, sparsely part of the highest form of life that evolution can produce on suitable planets have a spiritual nature. They are subjective animals because they have a faculty of imagination, and they become reflective subjects when the use of language enables them to represent the causes of their behavior as part of the very process of causing it. That enables them to see into the minds of others and understand the causes of their behavior, so recognition of the equality of all reflective subjects is part of their spiritual nature. Since cooperation is essential to the way that spiritual organisms survive, obeying rules about how they treat one another that promote conditions under which they can cooperate is basic to their spiritual nature—as basic as cells following a genetic plan is to the development of a fertilized egg cell into a multicellular animal. In short, morality is an essential aspect of the spiritual form of life. Choosing good over evil is good for beings like us because that is what we must choose to live the form of life we have. Science will explain why we ought to be moral.

This naturalistic explanation of the origin of beings like us will be surprising to you because it explains our moral nature as a way that reconciles free will and determinism. Though every event in a

world constituted by space and matter is completely determined, reflective subjects have a free will because their behavior is guided by a geometrical cause. As a choosing machine, its function is choosing between goals, including the basic function of choosing good over evil. And reflective subjects are responsible for what they choose because the ability to represent the causes of their behavior as part of the process of guiding it means that they can choose which desire to act on in any situation, and they have a spiritual desire that enables them to do what is required by moral rules (or some other parts of culture) even when it is contrary to self-interest or opposed by strong animal desires. Your belief that free will is incompatible with determinism depends on the assumption that everything is determined by physical causes, and that is not true because they are constrained by geometrical causes (as explained by spatio-material ontological mechanisms). Since reflective subjects can always have acted otherwise when they do wrong, they are justly held responsible for what they do. And since the spiritual desire derives from the desires constituting the dominance hierarchy in pack animals, public punishment for wrongdoing can be justified in some cases because it strengthens the spiritual desire in much the same way that young alpha males that are defeated in challenging the leader of their pack acquire a new desire to be a follower. By strengthening the spiritual desire, punishment, like tough love, makes it easier to choose good over evil—and increases the power to defer gratification in doing what is in one's self-interest.

As far as I can tell from your debates, when science explains human nature in this way, you and Jordan Peterson will be able to agree about the nature of the good. As a naturalist defending what science knows about the natural world, you will be able to accept this explanation of our spiritual nature. But since science will be based on interactions of substances, rather than mathematically formulated laws of physics, you will be able to

understand why Peterson has been insisting that we have a spiritual nature that transcends the physical world. He will also be able to accept this explanation of the nature of what is good for beings with a spiritual nature because moral goodness is normally a necessary condition of goals being good, and he will be able to accept the way that members of spiritual organisms are responsible for what they do as a foundation, at least, for explaining the elusive meanings of folk stories, myths, and religion.

My argument predicting this scientific revolution is presented in a trilogy that I am self-publishing, called Naturalistic Reason. The first volume, the Unification of Physics, gives my reasons for believing that the problems of modern physics will soon be solved, and the second volume, the Unification of Science, gives my reasons for predicting that a revolution in the life sciences, caused by the recognition of geometrical efficient causes, will enable naturalists to explain the difference between good and evil in a way that resolves disagreements about the nature of the good.

But I should warn you that this is not the only consequence I predict of the discovery that space is a substance that interacts with matter. That way of explaining what exists most basically will enable scientists to explain how consciousness is part of the natural world, so when they explain the existence of their own complete scientific explanation of nature as an offspring of philosophy (in particular, metaphysics), they will discover that Western civilization is a distinct stage in the evolution of life, which I call the metaphysical stage. That will not only explain the Cartesian mind by the brain but also explain the Judeo-Christian God by the natural world. When the metaphysical stage is complete, it will be clear that the natural world has all the perfections attributed to its creator, except for existing outside

space and time. It will turn out that there is much truth in religious beliefs, such as the origin of our spiritual nature in the Garden of Eden, the meaning of the crucifixion of Christ, and the doctrine of the trinity. This is the upshot of the argument in the Unification of Science and Philosophy, the third volume of Naturalistic Reason.

Nothing will be left unexplained by a science based on ontology, and the completeness of this scientific explanation has the unity of being the consequence of a single empirical discovery about space. Your debates with Jordan Peterson about goodness are what made me hopeful enough about the rational pursuit of truth to try publishing my argument in this way, and though there may be incomplete or mistaken arguments in this trilogy, I am confident that the discovery that space is a substance that interacts with matter will eventually cause the scientific revolution I predict. But since this sounds too good to be true, let me say something about its origin. I have been working on this argument, pretty much on my own, for over 45 years, while teaching philosophy at American University for 30 years and since retiring from teaching over 20 years ago. As a philosopher, I have written this argument with a care that justifies expecting it to stand up under such scrutiny, and I am prepared to defend it on all fronts. My reason for writing you and a few others is to make what I have discovered public. I am about to turn 83, and I believe that it is my duty to tell others about my discoveries because my spiritual organism has given me the leisure and privilege to enjoy a life spent in such an exceedingly meaningful way.

Even to someone who believes in the rational pursuit of truth, the prospect of reading a detailed all-inclusive explanation of the natural world in three volumes is daunting, so I am offering an easier 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 may cast doubt on it. You can reach me personally at philliphscibner@yahoo.com.