

Dear Niall Ferguson:

In *Civilization: The West and the Rest*, you argued that what made the West different are “killer apps,” which can be traced to the Enlightenment, and worrying about the current decline of Western culture, you suggest that adopting those “killer apps” may enable China and Asian powers to replace its global leadership. I believe that the rise of the West has a deeper cause than “killer apps”—one that cannot easily be adopted by Asian civilizations—and that the discovery of that deeper cause will end the current cultural decline and restore the genius behind the Enlightenment. I write to you because I have used your 2011 book to frame my argument about a deeper cause of Western civilization, and I believe that you will be interested in it because it entails a prediction that will help you as you turn from writing histories to supporting the University of Austin and other institutional means of keeping the treasure that we have inherited from the Enlightenment from slipping away.

It is not easy to explain this cause because it is entailed by an argument that predicts a solution to disagreements about fundamental issues. But the implications of settling them in this way extend all the way to a surprising discovery about the nature of human history. The cause of the Enlightenment and what you call its “killer apps” is a distinctive trait of Western culture that began in ancient Greece. A scientific explanation of how it made the West different from the rest will not only show the same cause to be responsible for its recent cultural decline but also restore the genius of the Enlightenment. Surprisingly, science will reveal that human history is part of a necessary biological regularity in which Western civilization is a stage in the evolution of life that follows the stage represented by other civilizations on Earth.

The direction of change in our culture is distressing because we seem to be losing a great treasure that we inherited from the Enlightenment. That was the highpoint of Western confidence in reason. In science, the rational pursuit of truth was expected to settle all disagreements about what is true in a way that everyone would accept. In practical affairs, the belief that we are rational beings who can be trusted to be moral showed that political institutions are legitimate only when they protect individual freedoms. And free markets were seen as rewarding entrepreneurial initiative and producing affluence.

But these days, no one believes that science will discover the complete explanation of nature that was expected of science when it began. What modern physics claims to have discovered at bottom is so different from what we ordinarily believe about the natural world that no one can even imagine what corresponds to its laws. Worse yet, what researchers in specialized fields currently believe is called “the science” and used as a political weapon to silence objections to administrative edicts. Though respect for the moral autonomy of rational beings was built into the US Constitution, the claim that the rights it protects are prior to government is defended only by those who believe in God—and they are expected to admit that the premise of their defense is a leap of faith. And capitalism is portrayed as an inequality of wealth protected by government because it is rule by the rich, if not an effect of systemic racism.

I call this decline from the Enlightenment endarkenment, and as you know from personal experience, it is dividing our population into opposing political camps that cannot agree on facts about current events, much less values. Never in the lifetime of anyone alive has there been so much reason for pessimism about the direction of change, so little trust that existing institutions will see us through, and so much willingness to consider basic change.

But endarkenment cannot be explained by recent historical events, and though the advent of social media may have contributed to it, the cause lies much deeper—but not so deep that it can't be understood.

The Enlightenment was a product of the ancient Greek belief that beings like us are capable of perfect knowledge, or literally, a complete explanation of what is found in the world. That cognitive power was called Reason. But it took two forms in ancient Greece, and their incompatibility set them on different careers in history. While their interactions carried Western culture to the Enlightenment, the inability to reconcile them caused endarkenment.

Pre-Socratic philosophers expected to explain everything by using the empirical method to discover the first cause. In the end, they agreed that the first cause is all the substances constituting the natural world, but they never discovered kinds of substances that can explain everything found in it. The other way of acquiring perfect knowledge was metaphysics, which can be defined as the belief that Reason is a cognitive power that knows Reality behind Appearance. It began when Plato argued that rational intuition knows about the Forms in a realm of Being that are responsible for everything intelligible about the visible objects found in space, the realm of Becoming, and the problem posed by this dualism led to metaphysicians defending other ways of showing how rational intuition knows Reality behind Appearance.

Despite the difference in their methods, both kinds of perfect knowledge were attributed to Reason, and after the Renaissance, the rebirth of ancient confidence in Reason as natural philosophy and modern metaphysics blossomed into Enlightenment optimism about progress leading to perfect knowledge of the true and the good. Its offspring took two forms, which were irreconcilable in a

similar way. One offspring was empirical science, which was expected to explain all the kinds of things found in the world. The other offspring was a religion based on metaphysics, which held that everyone is a Rational being because they were all created in the image of God. Rational beings could be trusted to be moral because knowledge of the difference between good and evil would cause them to choose freely to be moral, even when it was contrary to self-interest or opposed by strong desires. And respect for the moral autonomy of Rational beings was the foundation for justifying liberal political institutions and capitalist economic institutions in Western civilization.

The cultural change currently distressing us is the loss of Enlightenment confidence in Reason. Scientific explanations of human cognition, such as those defended by Freud, Darwin, and Marx, have led to disillusionment with Reason. Though science is still our most reliable knowledge, it doesn't enable us to understand the basic nature of the world. For example, no one can believe that change is unreal, though that is true, if Einsteinian spacetime is what really exists. However, science is naturalistic, and the undeniable advance of science during the past few centuries has made belief in a supernatural God untenable. Belief in a God who created the natural world for a purpose is just a leap of faith. And since science cannot explain the nature of the good, it cannot explain why we ought to be moral, so trust in liberal political institutions has given way to the belief that we need an administrative state, run by experts, to promote the common good. Indeed, the contemporary commonplace about there being no such thing as the True, with a capital T, has replaced the rational pursuit of truth with relativism. Everyone is supposed to have their own reality. Even major scientific discoveries are seen as tentative because solutions to scientific problems always turn up new problems. These days, no one claims to show how Reason can give us perfect knowledge.

Reason will, however, triumph in the end. There is a deep cause of both the Enlightenment and endarkenment, and when a discovery made by physicists enables science to discover it, science will reverse the rising tide of endarkenment and restore the genius behind the 18th-Century Enlightenment as what I call the Second Enlightenment.

The deep cause of the metaphysical stage of evolution is intuitionism, the belief that knowledge comes from objects that are immediately present to us, as if they were given in a faculty of intuition. That is false because all knowledge depends on efficient causes at work in the brain, and intuitionism is a deep mistake because it is caused by an illusion built into the nature of consciousness (as the phenomenal aspect of experience). Like optical illusions, the illusion of intuitionism does not go away when it is recognized to be illusory. And this cause is so deep that it has been at work throughout the history of the West. After enabling metaphysics to give rise to the confidence in Reason that blossomed during the Enlightenment into science and liberal political institutions, it caused a decline of confidence in Reason in both philosophy and science.

Metaphysicians assumed that perception depends on a faculty of intuition, and assuming that there is also a faculty of rational intuition, they argued that intuitionistic Reason enables us to know Reality behind Appearance. But advances in science made the beliefs about the nature of the Reality that metaphysicians claimed to discover behind Appearance seem downright foolish, and since they included the belief that God created the natural world, theists were forced to admit that belief in God was just an act of faith. Without a way to defend the claim that Reason knows the True with a capital T, intuitionistic metaphysics gave way to romanticism, the belief that intense feelings or acts of extreme

courage put us in touch with Reality behind Appearance. And after romanticism, intuitionism led to post-modern philosophers preaching the gospel of relativism and spreading it to popular culture.

To be sure, science is a form of naturalism that does not seem to be affected by intuitionism. It began by rejecting the metaphysicians' assumption that perception depends on a faculty of intuition, and since scientists took themselves to be animals with sensory organs, they followed the pre-Socratics and used the empirical method to learn about the natural world. But what made science credible was the astonishing success of physics. As history shows, its success came from assuming that mathematics is known by a faculty of rational intuition. The Newtonian revolution gave physics a method that implicitly assumed that mathematically formulated laws of nature are the deepest possible empirical knowledge of the natural world. Since the use of a priori mathematics as a language to describe regularities blinded physics to some other regularities about change, the method of physics itself caused the intractable puzzles that now confront it—and that deprived other branches of science of a second kind of efficient cause, which is needed to explain the regularities they study completely.

Intuitionism was responsible for the rise of confidence in Reason in the West after ancient Greece as well as its decline after the Enlightenment, and science will be able to explain how intuitionism caused both the rise and fall of its culture because what physicists discover when they trigger a scientific revolution will also enable science to explain how consciousness is part of the natural world. This explanation reveals the illusion inherent in consciousness, and the key to explaining Western civilization is discounting the illusion of intuitionism and using it to explain how consciousness allows language-using brains that exchange

metaphysical arguments to cause the kind of cultural evolution that occurred in Western civilization. [This scientific explanation is tricky because it runs contrary to what we all naturally assume. It requires us to distinguish between consciousness (as phenomenal properties that are immediately present) and reflection (as what a language-using brain can know about the brain states causing its behavior by representing them as causes as part of the process of causing it) and to recognize that consciousness is not the efficient cause of any event but merely helps constitute what happens in the brain.]

But the discovery of the cause of the metaphysical stage will give us knowledge that pre-Socratics as well as metaphysicians would recognize as perfect because it will turn science into a cognitive power that naturalists and metaphysicians will both recognize as Reason. Parts of consciousness are what intuitionistic metaphysicians mean by Appearance and Reason, so ontological scientists will find themselves knowing Reality behind Appearance. But since science uses the empirical method to discover the first cause, they will insist that their cognitive power be called naturalistic Reason (or natReason, for short). The certainty of this knowledge will not come from a faculty of rational intuition but, rather, from discovering that an explanation of everything that leaves no grounds on which a refutation can be founded. It will be universally accepted because science is empirical knowledge and everyone will know that their beliefs are true by how they correspond to the natural world where they find their bodies. It will explain goodness as an essential aspect of the nature of life, and since that will show that beings like us have a spiritual nature by virtue of being parts of a form of life on a level of organization higher than multicellular animals (known as societies), we will know why we ought to be moral. NatReason will solve the hard problem of mind because it will show that language-using brains that exchange metaphysical arguments

while falling for the intuitionistic illusion inherent in consciousness eventually conjure up a phantom Reality called mind. It will even explain the divine by showing that the world itself has all the perfections attributed to the Judeo-Christian God except for creating the natural world from outside space and time.

This is a very abbreviated rendition of a long argument, but the argument as a whole is simple and complete enough to show the possibility that a deeper cause of both the Enlightenment and endarkenment will eventually vindicate the Western belief in Reason. The complete argument is presented in a trilogy, called *Naturalistic Reason*, that I am self-publishing as I send you this message, and it is presented in enough detail that, if it is on the right track, it will cause the scientific revolution it predicts. The first volume, *The Unification of Physics*, predicts that when physicists infer that the natural world is constituted by two opposite substances, space and matter, as the best explanation of mathematical truth, they will solve the problems of modern physics. The second volume, *The Unification of Science*, shows how the reduction of physics to spatio-materialism reveals a kind of efficient cause, not recognized by physics, called geometrical causes, and shows how specialized sciences use it to explain the regularities they study completely enough to discover that evolution brings beings like us into existence on suitable planets throughout the universe. The third volume, *The Unification of Science and Philosophy*, explains how consciousness is part of a world constituted by matter and space and uses the illusion inherent in it to show that Western civilization is a distinct stage in the evolution of life caused by the exchange of metaphysical arguments that culminates in the Second Enlightenment.

You will be skeptical of this prediction because it sounds too good to be true. But it is worth considering because it will give you a way of thinking about how to promote institutions, like the

University of Austin, that will help fight the rising tide of endarkenment. Those who look back a decade or two from now will see you as helping keep the treasure inherited from the Enlightenment from slipping away. And knowing how the genius behind the Enlightenment will eventually be restored may help you restore it.

Since you will wonder about anyone who seriously asks you to consider such an unlikely argument, let me say something about myself and 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. There may be incomplete or mistaken arguments in it. But I am confident that the discovery that space is a substance that interacts with matter will eventually cause the scientific revolution I predict, 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 society has given me the leisure and privilege to enjoy a life spent in such an exceedingly meaningful way.

Even to those who believe 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.