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## ARE WE REALLY SO MODERN?

*For all our technological breakthroughs, we're still wrestling with the same basic questions as the Enlightenment philosophers.*

By [Adam Kirsch](#)

During the Enlightenment, every fixed point of knowledge began to wobble. Illustration by Brian Cronin

We like to think of ourselves as living in an age of unprecedented disruption. Just look at all the commonplace features of our world that didn't exist a century ago—jet travel, television, space flight, the Internet. If you could transport someone from the year 1916 to the present, we ask a little proudly, wouldn't that person be stupefied by the changes? And, of course, he would be, at least for a few days, until he figured out how everything worked. But one thing would be very familiar to such a time traveller: the pride, and the anxiety, we feel about being so modern. For people in the early twentieth century were as acutely aware of their modernity as we are of ours, and with just as good reason. After all, they might have said, imagine someone transported from 1816 to 1916: what would that person have thought of railroads, telegraphs, machine guns, and steamships?

Modernity cannot be identified with any particular technological or social breakthrough. Rather, it is a subjective condition, a feeling or an intuition that we are in some profound sense different from the people who lived before us. Modern life, which we tend to think of as an accelerating series of gains in knowledge, wealth, and power over nature, is predicated on a loss: the loss of contact with the past. Depending on your point of view, this can be seen as either a disinheritance or an emancipation; much of modern politics is determined by which side you take on this question. But it is always disorienting.

If we are looking for the real origins of the modern world, then, we have to look for the moment when that world was literally disoriented—stripped of its sense of direction. Heliocentrism, the doctrine that the earth revolves around the sun rather than vice versa, was announced by Copernicus in 1543 and championed by Galileo in the early sixteen-hundreds. This revelation was immediately experienced as a profound dislocation, as John Donne testified in his 1611 poem "An Anatomy of the World": "The sun is lost, and th' earth, and no man's wit / Can well direct him where to look for it." More than two hundred and fifty years later, Nietzsche was reeling from the same cosmic loss of direction: "What were we doing when we unchained this earth from its sun? . . . Are we not plunging continually? Backward, sideward, forward, in all directions? Is there still any up or down?" Modernity is a vertigo that began in the sixteenth century and shows no sign of letting up.

Nietzsche is usually classified as a philosopher, Donne as a poet, and Galileo as a scientist. But one of the premises of Anthony Gottlieb's new book, "The Dream of Enlightenment" (Liveright)—the second installment of his lucid, accessible history of Western philosophy—is that thought cannot be divided according to disciplines in this way. For philosophy, in particular, such a division is misleading. Today, we tend to think of philosophy as a specialized academic pursuit: a philosopher is a professor of philosophy. But none of the founders of modern philosophy whom Gottlieb discusses fit that description. Some were mathematicians: René Descartes invented the Cartesian coordinate system with its x- and y-axes, and Gottfried Leibniz invented calculus (around the same time as, but independently of, Isaac Newton).

Some were professionals: Baruch Spinoza ground lenses for optical equipment; John Locke was a doctor and a diplomat. And some were literary writers, like David Hume, who was better known in his lifetime for his “History of England” than for his philosophical works. Usually, they overlapped several categories.

One of Gottlieb’s central insights is that, as he wrote in his previous volume, “The Dream of Reason,” which covered thought from the Greeks to the Renaissance, “the history of philosophy is more the history of a sharply inquisitive cast of mind than the history of a sharply defined discipline.” You might say that philosophy is what we call thought in its first, molten state, before it has had a chance to solidify into a scientific discipline, like psychology or cosmology. When scientists ask how people think or how the universe was created, they are addressing the same questions posed by philosophy hundreds or even thousands of years earlier. This is why, Gottlieb observes, people complain that philosophy never seems to be making progress: “Any corner of it that comes generally to be regarded as useful soon ceases to be called philosophy.”

Therefore, philosophy shouldn’t be considered a kind of centuries-long chess match, with thinkers taking turns in an abstract intellectual game. For instance, in treating the philosophy of the seventeenth and eighteenth centuries, it is conventional to cast it as a struggle between “rationalists” and “empiricists.” In this account, everyone from Descartes to Hume is engaged in one long battle over whether truth is to be found “in here,” through strictly logical reasoning on the model of mathematics, or “out there,” through observation of the world. This debate, in turn, was finally resolved by Immanuel Kant, in the late eighteenth century, when he figured out a way to show that both sides were correct, since all perception is necessarily filtered through the categories imposed by our minds.

There is some truth to this account—the origin of knowledge was certainly a concern for all these thinkers. But Gottlieb, who is not an academic and spent much of his career as a journalist—he is a former executive editor of *The Economist*—sees that they were situated in a much wider world. Their thought was informed not just by previous philosophy but by politics, religion, and science—the whole intellectual and spiritual life of their times. And it was because these times were so tumultuous that they were able to think in such a radical way. Eras in which everything is up for grabs are very rare, and they seem to be highly productive for philosophy. As Gottlieb points out, much of the Western philosophy that still matters to us is the product of just two such eras: Athens in the fifth and fourth centuries B.C. and Western Europe in the seventeenth and eighteenth centuries A.D.

It is hard for us to comprehend how totally Western consciousness was transformed during the second of these two periods, precisely because we live in its aftermath. In just a few generations preceding it, every fixed point that had oriented the world for thousands of years began to wobble. The discovery of America destroyed established geography, the Reformation destroyed the established Church, and astronomy destroyed the established cosmos. Everything that educated people believed about reality turned out to be an error or, worse, a lie. It’s impossible to imagine what, if anything, could produce a comparable effect on us today. Even the discovery of alien life in the universe wouldn’t do it, since we have long learned to expect such a discovery, whereas medieval Europeans could never have anticipated the existence of America, or of electricity.

Perhaps if it were somehow confirmed that, as some thinkers speculate, our universe is actually a simulation run on a computer by an unfathomably advanced intelligent civilization, we would feel an analogous sense of confusion and possibility. That would raise the questions that were at the heart of philosophy in both of Gottlieb’s magical periods in a new way. What does it mean for something to be?

Why does anything exist in the first place? Such metaphysical questions are what, from the very beginning, gave philosophy a bad name, because to practical-minded people they appear useless. That is why the comic playwright Aristophanes, in his play "The Clouds," portrayed Socrates as discussing questions such as whether a gnat buzzes through its nose or its anus. No one knows, sure, but also no one cares.

Not caring about things like being and meaning, however, is impossible, because they are the fundamental concepts that structure our very experience of the world. People who say they don't care about metaphysics really mean that their received ideas on such matters are so fixed that they have disappeared from consciousness, in the same way that you don't usually notice your heartbeat. Philosophers are people who, for some reason—Plato called it the sense of wonder—feel compelled to make the obvious strange. When they try to communicate that basic, pervasive strangeness or wonder to other people, they usually find that the other people don't like it. Sometimes, as with Socrates, they like it so little that they put the philosopher to death. More often, however, they just ignore him.

But the seventeenth and eighteenth centuries were one of those rare periods when a lot of people cared, because their sense of the world was decomposing so dramatically. Literate people—and, thanks to the printing press, there were more of these than ever before—were eager to hear from philosophers who could give new answers to the ancient questions. If everything you thought you knew was wrong, how could you ever be confident that your knowledge was correct? Where does knowledge come from? What is matter made of? Is there a God, and, if so, what kind of being is he?

These were the questions that animated the philosophers discussed by Gottlieb, starting with Descartes. Born in 1596, Descartes was what at the time would have been called a "natural philosopher," or what we would call a scientist. His areas of expertise, in addition to mathematics, included optics, physiology, and meteorology. He "was so fascinated by machines and all kinds of mechanical contraptions," Gottlieb writes, "that, according to a piece of widespread gossip, he was often accompanied by a life-size working doll that was practically indistinguishable from his illegitimate daughter, Francine."

This rumor was a fitting one, since Descartes argued for a thoroughly mechanistic view of nature. For centuries, Aristotelian science had taught that the fundamental units of being were substances, in which qualities or "accidents" were lodged: thus, a cow is a substance, the redness of the cow an accident. Descartes abolished this distinction, holding, instead, that everything physical that exists is simply matter in space. The primary facts of nature are things like "heaviness and hardness," which are descriptions of the physical arrangement of matter. Secondary qualities, such as "light and colors, sounds, smells, tastes," and so on, are subjective. They appear to human beings because of the way our sensory apparatus is constructed, but they are not inherent in the things themselves.

Another way of putting this is that Descartes described reality in terms of qualities that can be measured mathematically. Descartes himself was a towering mathematician, but he was far from the first philosopher to regard mathematics as the gold standard of truth: Pythagoras and Plato had done so two thousand years before. In the dialogue known as the Meno, Plato depicts Socrates teaching a slave boy the Pythagorean theorem—or, rather, leading the boy to figure it out for himself. The dialogue shows what is so seductive about mathematics, that each step follows inevitably from the previous step, in a way that makes it absolutely beyond doubt or error. You can get math wrong, but when you're right you know you're right.

*“Sometimes it seems there just aren’t enough hours in the day.”*

To Plato, this could be explained by the fact that the soul had a life before birth in which it learned mathematical truths, so that learning is really a form of remembering. Descartes had no use for such a tale, which raised far more questions than it answered. But he, too, was drawn to the kind of certainty that mathematics offered, and in his “Meditations” he claimed to have achieved it. Begin, Descartes wrote, by doubting absolutely everything you know, think, and perceive; assume that it is all delusive, as in a dream. Does anything remain absolutely certain, even after this purge? One thing does, he argued: the fact of my consciousness. If I did not exist as a mind, there would be no “I” to be deceived by appearances. If I think, I must exist—*Cogito ergo sum*.

From this fixed basis, Descartes believed that he could infallibly deduce another crucial principle: the existence of a good God, who guarantees the truth of my perceptions and so underwrites the existence of the world. But here most people believe that Descartes went astray. “God’s guarantee is not worth the paper Descartes wrote it on,” Gottlieb quips. And, if God doesn’t exist, then all Descartes has done is leave the individual trapped “in a prison of his own ideas,” unable to prove that what he experiences has any basis in external reality. Indeed, Descartes never found a satisfying solution to the problem of how mind and matter interact. He famously identified the pineal gland as the point of connection, though how a gland could have access to an immaterial mind is far from clear.

Gottlieb observes that Descartes would have been disappointed to know that he gave rise to a whole new era of philosophy. He thought that there would not have to be any philosophy after him, since he had solved all the problems; only experimental research would remain. But while science achieved amazing things in the years after Descartes—this was the age of Newton’s discovery of gravity and Boyle’s invention of modern chemistry—philosophy did not fall mute. The more that the new science seemed to confirm Descartes’s mechanical picture of the universe, the more necessary it became to ask what matter and mind really were and how they fit together.

Some of the answers that the best minds of the period came up with may now appear bizarre. That is the case with Gottfried Leibniz, born in 1646, whom Gottlieb calls “the greatest polymath since Aristotle.” When Leibniz tried to tackle the problem of how mind and matter interact, he came up with a radical new thesis: they don’t. Everything that exists, he believed, is made up of units called monads, and these monads have absolutely no way of impinging on or communicating with one another—Leibniz referred to them as “windowless.” Each monad has its own destiny, and it acts and moves entirely of its own accord. If the world nonetheless appears to be a chain of causes and effects, that is because the monads are programmed to behave in such a way that they seem to be interacting. This “pre-established harmony” is guaranteed by a beneficent God.

If philosophy is defiance of common sense, then Leibniz’s ideas are very philosophical indeed—too much so even for most of his fellow-philosophers. (Hegel called them “a metaphysical romance.”) But he was driven to the apparent absurdity of denying causality by his desperation to solve the problem that Descartes couldn’t: How can immaterial mind affect material bodies, and vice versa? Even today, cognitive scientists struggle to understand how consciousness arises from matter, though few doubt that it does. Likewise, the idea that, as Gottlieb writes, “physical bodies are . . . not quite what they seem, but are only appearances somehow thrown up by monads” seems less extravagant in the light of contemporary string theory, which holds that everything that exists is the product of vibrating one-dimensional objects. And both of these ideas can be seen as refinements of the very first idea in

Western philosophy, Thales's enigmatic statement that everything is water. In each case, theory denies that the world as it appears is the fundamental reality, and looks to something more original to explain it. To answer the questions that philosophy asks, a long detour through science is necessary; but at the beginning and the end of the journey we find the same sense of wonder.

One of the most popular names for the unexplainable is God: God is how we answer questions about creation and purpose that we can't answer in any other way. Certainly, both Descartes and Leibniz relied on God to balance the equation of the universe. Without him, they believed, the world did not make sense. The philosophers' God was not necessarily identical to the God of Christianity, but he had some reassuringly familiar attributes, such as beneficence and providential oversight of the world. But Baruch Spinoza, another revolutionary thinker of the seventeenth century, went furthest in reconceiving the idea of God, in ways so radical that his name became a byword for dangerous atheism. Spinoza's trouble with organized religion started early: at the age of twenty-three, he was excommunicated from the Jewish community of Amsterdam for his heretical views.

His heresy, as developed later in his magnum opus, "Ethics," was not to deny the existence of God. Instead, Spinoza made God so crucial to the world that the distinction between the two collapsed. There could not be two substances in the universe, Spinoza argued, one physical and the other divine, since this involved a logical contradiction. If God and Nature were distinct, then it must be the case that Nature had some qualities that God lacked, and the idea of a supreme being lacking anything was incoherent. It follows that God and Nature are just two names for the same thing, the Being that comprises everything that ever existed or ever will exist.

This radical idea, known as pantheism, has strange and paradoxical results. On the one hand, it divinizes the universe, meaning that it brings God very close to us—indeed, it says that we ourselves are part of God. On the other hand, an immanent God is not the kind of God who watches over the world, hears prayers, and punishes sinners. It is in this sense that Spinoza's contemporaries called him an atheist: he made God unrecognizable. He was also much bolder than other philosophers in stating what many of them surely believed, that the Bible was a human document that contained no privileged information about historical events or the nature of divinity. It should therefore be read and studied like any other book, with due attention to the motives of its authors and the errors that had crept in throughout years of transmission. This secular, rational approach to Scripture made Spinoza arguably the father of Biblical criticism.

A more unexpected corollary of Spinoza's pantheism is that it eliminates the possibility of free will, or of contingency of any kind. After all, if everything is God, and God is absolute, then there is no way that anything could happen differently from the way it does. If we knew enough about how the world works, we "would find all things just as necessary as are all those treated in mathematics." Once again, at a time when so much of human knowledge had been cast into doubt, the idea of mathematical certainty was seductive. Spinoza longed for "the kind of knowledge of God that we have of the triangle," and he wrote his "Ethics" in the form of a numbered list of axioms and deductions—a form that he adopted from Euclid's treatise on geometry. Spinoza's definition of "blessedness" was "the intellectual love of God," in which the mind sees the necessity of everything in the world as simply and indubitably as Plato's slave perceived the necessity of the Pythagorean theorem.

If Spinoza seemed to take away humanity's metaphysical freedom, however, he gave it an unprecedented degree of political freedom in exchange. In his "Theological-Political Treatise," he

praised the tolerant multicultural society of Amsterdam and held it up as a model for the world. But he wanted to go even further. Democracy, he argued, was “of all forms of government the most natural, and the most consonant with individual liberty.” He insisted on *libertas philosophandi*, freedom of thought, and, while he granted that the state had the power to establish the outward forms of religious worship, he adamantly opposed any coercion of conscience. Each person had the right to decide what God was and how best to serve him. Taken together, these beliefs give Spinoza a claim to be considered the first great philosopher of liberal democracy.

There is something unearthly about Spinoza’s thought; similarly, there was something unworldly about the man himself. Gottlieb writes that “his kindness and nobility of character were legendary,” and he quotes Bertrand Russell’s description of Spinoza as “the noblest and most lovable of the great philosophers.” But this kind of irreproachability can be hard to take, just as the intellectual love of God can seem impossible to attain. (Isaac Bashevis Singer’s great story “The Spinoza of Market Street” concerns a Warsaw intellectual who spends his life trying to achieve that superhuman serenity, only to fall humiliatingly in love with his nurse.)

In “The Dream of Enlightenment,” Gottlieb writes with particular affection about his fellow-Brits, the philosophers Thomas Hobbes, John Locke, and David Hume. Where Descartes and Spinoza tried to come to grips with reality through purely deductive logic, the conventional story goes, Locke and Hume valued the evidence of the senses. Their empiricism is often taken to be a peculiarly British kind of virtue, defining a difference between British and Continental philosophy that persists to this day: on the one hand, skepticism of knowledge that has no basis in experience and experiment; on the other, outlandish theories based on unrestrained ratiocination.

Gottlieb does not structure his book around this opposition, but he does show that it has some basis in fact. Of all the philosophers he discusses, his favorite seems to be Hume, who went furthest in rejecting the deductive, geometrical ideal in philosophy. Spinoza wanted a knowledge of the world that was as certain as the truths of mathematics, but Hume pointed out that this was a category mistake. All our knowledge of the world depends on experience, which means that it is contingent, not absolute. We can, of course, trust that the sun will rise in the east tomorrow, just as it did yesterday and every day before that. But we can’t prove that it will rise in the same way we can prove that two plus two is four. “ ’Tis not, therefore, reason, which is the guide of life, but custom,” Hume concluded.

In Hume’s view, Descartes’s program of demolishing the world through doubt and then rebuilding it through logic is bound to fail. Instead, we have to accept that our knowledge of the world is not absolute, as much as we might like it to be. There is no surefire way to breach the gulf between subjective and objective—what happens in my mind and what happens out there in the world. This is equally true of the next world: Hume was comfortably skeptical about religion’s promise of life after death. Gottlieb tells the story of how James Boswell, the biographer of Samuel Johnson, visited Hume on his deathbed, hoping to find that at the last minute the philosopher would abjure his doubts and embrace Christianity. But Boswell was disappointed to hear Hume affirm “that it was a most unreasonable fancy that we should exist for ever.” Much of the philosophy of the early modern period might now strike us as another kind of unreasonable fancy. But we are still living with the problems that these thinkers formulated and tried to solve. We are never quite as modern as we think. ♦