How Did God Get Started?

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THE USUAL SUSPECTS

One day in the Middle East about four thousand years ago, an elderly but still rather astonishingly spry gentleman took his son for a walk up a hill. The young man carried on his back some wood that his father had told him they would use at the top to make an altar, upon which they would then perform the ritual sacrifice of a burnt offering. Unbeknownst to the son, however, the father had another sort of sacrifice in mind altogether. Abraham, the father, had been commanded, by the God he worshipped as supreme above all others, to sacrifice the young man himself, his beloved and only legitimate son, Isaac.

We all know how things turned out, of course. An angel appeared, together with a ram, letting Abraham know that God didn't really want him to kill his son, that he should sacrifice the ram instead, and that the whole thing had merely been a test.

And to modern observers, at least, it's abundantly clear what exactly was being tested. Should we pose the question to most people familiar with one of the three "Abrahamic" religious traditions (Judaism, Christianity, Islam), all of which trace their origins to this misty figure, and which together claim half the world's population, the answer would come without hesitation. God was testing Abraham's faith.

If we could ask someone from a much earlier time, however, a time closer to that of Abraham himself, the answer might be different. The usual story we tell ourselves about faith and reason says that faith was invented by the ancient Jews, whose monotheistic tradition goes back to Abraham. In the fullness of time, or—depending on perspective—in a misguided departure, the newer faiths of Christianity and Islam split off from their Jewish roots and grew to become world religions in their own right. Meanwhile, in a completely unrelated series of events, the rationalistic paragons we know as the ancient Greeks invented reason and science. The Greek tradition of pure reason has always clashed with the monotheistic tradition of pure faith, though numerous thinkers have tried

to "reconcile" them through the ages. It's a tidy tale of two pristinely distinct entities that do fine, perhaps, when kept apart, but which hiss and bubble like fire and water when brought together.

A tidy tale, to be sure, but nearly all wrong. Historians have been struggling to correct it for more than a century. What they haven't done, however, is work out the implications of their findings in a way that gives us a new narrative explanation to take its place. This failure of synthesis may have something to do with why the old, discredited story has hung on for so long in popular imagination. Because we separate faith and reason psychologically, thinking of them as epistemological opposites, we tend rather uncritically to assume that they must have separate historical origins as well. A moment's reflection says "it ain't necessarily so"—and is even unlikely to be so. It's time for a new narrative about the origins of monotheistic faith, one that's indebted to recent scholarship, but that puts it together in a coherent pattern consistent with both history and psychology.

Surprisingly, the pattern that fits best with the historical evidence locates the origins of faith in the rise of reason itself, and despite its novelty it does so in a way that I suspect will strike many readers as sensible and intuitive. This new synthesis in turn yields psychological insights into the issues of faith and reason that continue to bedevil us today—from public confrontations over evolution, abortion, and gay rights, to suicide bombings, West Bank settlements, and flying lessons in which students ominously disdain instruction in landing.

IT WASN'T THE JEWS

OF COURSE, faith is notoriously hard to define, but "belief in God" presents a common-sense starting point. It's true that we sometimes use the word "faith" to describe non-monotheistic religious traditions such as Buddhism or Hinduism. But even if we acknowledge the marginal presence of something we'd call faith in such traditions, it seems clear that monotheistic religions emphasize faith in ways that other religions do not. Any religious practice implies a basic belief in one's own objects of worship. That sort of belief, common to all humanity, is the part of our larger religious instinct that we might call *the mental faculty of faith*. It permits worshippers to accept the

existence and divinity of gods whom they themselves do not worship, as people did, for example, in ancient Greece and Rome. Monotheism, by contrast, at least the kind we're familiar with, requires disbelief in the existence or divinity of other objects of worship. In saying "My God is the only God," monotheists also say, "Your god isn't god—unless it's the same as my God."

Faith, in this sense, encompasses more than mere religious belief. It also entails a negative belief about other kinds of belief, a peculiar kind of exclusivity found only in true monotheism. We might call that exclusive sort of belief *the tradition of faith*. Admittedly, all kinds of religion rely on tradition. But let's try a thought experiment. Imagine for a moment that we could wave a magic wand and make everyone on the planet forget everything they know about religion. At the same time, we can erase every word of religious scripture, along with all religious representations in art and literature. The idea is to imagine a state of total religious amnesia, so that we'd all be starting from scratch. If we wiped all religion away, anthropology suggests, it would rapidly reappear in new yet familiar forms—but probably without monotheism, assuming that history is any guide. Religion in the broad sense clearly represents a human instinct, since we find it in all human societies. But we can safely say that there's no instinct for monotheism as such, since no society ever came up with the idea independently after it first appeared. There were no monotheists until the idea of one God was invented, and all monotheists ever since have worshipped their one God only because they got the idea from those who came before them—which may have something to do with why monotheists speak of being *converted*, or "turned together" toward the worship of a single, unitary God. If you worship that sort of God, you share in that single, though by now hardly unitary, tradition. Some will object that their faith is entirely a matter of their own internal attitude, but my point is that this internal attitude wouldn't exist, and never has existed, without a tradition to guide the shaping of it. The monotheistic tradition of faith seems to focus and amplify the mental faculty of faith, concentrating the idea of the divine into a single, exclusive deity.

That the world's monotheisms descended from a single ancestor probably also helps perpetuate the common perception that it all started with Abraham. Who else but the Jews, those famous monotheists from way back?

Yet religious scholars agree that this isn't quite the sort of belief that Abraham would have recognized. Modern research suggests that the religion of Abraham and his fellow Hebrews was not, strictly speaking, monotheistic at all, but "monolatrous." In other words, during Abraham's time and for many centuries afterward, the ancient Hebrews worshipped not a God whom they held to be the sole deity in existence, but simply one god among many, a god whom they conceived of as being more powerful than the jostling plethora of lesser gods worshipped by other peoples, but who nonetheless shared the stage with them. This essentially polytheistic outlook accords with the frequent mention of other gods in the Hebrew Bible (Old Testament), for example. It also accords with the way that Abraham's faith has the feel of a contractual arrangement. When religious scholars use the word "faith" at all to describe Abraham's attitude to his God, it's generally coupled with a word like "juridical."

The God that Abraham worshipped went under various names—*El Elion* ("God Most High"); *El Olam* ("God Eternal"); *El Shaddai* ("God the Mountain"); *El Ro'i* ("God All-Seeing")—and appears to have been a version of the indigenous god El whom the Canaanites worshipped before and after Abraham's arrival. El was the Canaanite high god, but under him served other gods such as the fertility god Baal and the water god Yam. Perhaps Abraham and his kin adopted El as their own, accepting him as the same god who had urged Abraham to leave Ur and seek out the land of milk and honey in the first place.

Only some seven centuries later, it's thought, did this God reveal to Moses that his real name was Yahweh, and that he wished to be known and worshipped under that name henceforth. Worshipped, still, it seems, as one among many: "Thou shalt have no other gods before me," says the First Commandment, implying that other gods were indeed a possibility, if an odious one. Some of them may have been behind the staffs-into-serpents trick by which Pharaoh's wise men tried to out-conjure Moses's brother Aaron, before their serpents were eaten up by Yahweh's. Nor, like El before him, does Yahweh appear at first to have been thought of by the Hebrews as a divine creator, at least not according to the picture we get from the last century or so of biblical scholarship. Scholars believe that not until the eighth century BC was the first biblical account of

creation composed (starting at Genesis 2:4), and that only a couple of centuries later did an anonymous priestly author write down the full-blown version we get starting at Genesis 1.

By that time, the Jews were rejoicing in their return to Palestine after the Babylonian Captivity (c. 586–538 BC). The ruler responsible for freeing them, the Persian conqueror Cyrus the Great, had absorbed Babylonia into his growing empire and incurred the Jews' eternal gratitude by sending them home. Enjoying a sense of revival and optimism, the Jews built the Second Temple in Jerusalem; Jewish priests acted as ambassadors to their Persian rulers.

Jewish life comes down to earth at this point. The days of the prophets are fading. From here on in, the Jews will be concerned less with further prophecies than with the proper interpretation of past ones.

In the coming centuries, the Jews did indeed take the final steps down the long road to true monotheism. But they didn't travel that road alone. Neither they nor their new conception of faith evolved in a vacuum. As it turned out, the Jews weren't the only or even the first people in this era to think about God as a single, unitary divine entity.

GETTING TO ONE

RIGHT AROUND the same time that the Jews were celebrating their release from the Babylonian Captivity, the ancient Greeks freed themselves from a very different sort of captivity. The crucial first step was a fully alphabetic writing system, which the Greeks invented and began using around 800 BC. Earlier alphabets had been missing vowels. The Greeks took one of them, the Phoenician alphabet, and added new letters for vowel sounds, making the whole thing a much more flexible and precise instrument. Here begins, if not the march, then at least the toddle toward string theory and space telescopes.

For writing and thinking go together, and the dawn of this new literary age was simultaneously the dawn of reason. Within a mere couple of hundred years or so, we see a Greek thinker named Thales of Miletus taking the novel step of trying to explain the material world in secular, naturalistic terms, and of publicizing his ideas so that others could critique them. In other words,

Thales (whose name rhymes with "Hailey's") invented science, as well as the larger tradition of rationalistic inquiry to which science belongs, and which soon included other disciplines such as history.

This is not to say that no one had ever thought rationally before, of course. All humans have the capacity for rational thought; clearly there exists something we might, for consistency, call *the mental faculty of reason*. It comprises an innate ability for symbolic logic, which we humans use in something akin to the way dolphins use sonar. Nor is it to say that neighboring civilizations such as those of Babylonia and Egypt hadn't developed wisdom traditions that included much information about the natural world. Thales and his immediate successors came from Ionia, the coast of what is now Turkey, where the mainland cities of Greece proper had established a number of prosperous colonies (of which Miletus was the acknowledged leader). Modern authorities believe that Ionia's proximity to those older cultures did much to stimulate Ionian thought. But their explanations always came back to religious mythology. Thales and his successors struck off in a fundamentally new direction, that of secular explanation. Within a generation or two, they established free rational inquiry as a recognizable movement, a culturally coherent literary and intellectual tradition, in which ideas and concerns were passed from identifiable individuals in one generation to identifiable individuals in another, with each generation building on the work of those who came before. Like the tradition of faith, *the tradition of reason* was invented only once, although also like its religious counterpart it concentrates and amplifies a corresponding mental faculty that's common to everyone.

And as any student of ancient philosophy can tell you, we see the first appearance of a unitary God not in Jewish scripture, but in the thought of the Greek philosopher Plato, who wrote in the early fourth century BC. Moreover, its origins go back to none other than Thales, who had proposed that nature can be explained by reference to a single unitary principle that pervades everything. Thales thought everything boiled down, so to speak, to Water, which he seems to have seen as an inherently divine material substance with no agency in nature; his immediate successors posited their own monist principles, including Air, Fire, and the Infinite. Divine but not divine agents, these ideas straddled the line between religious and secular. In his contribution to a

groundbreaking book called *Pagan Monotheism in Late Antiquity* (1999), the classicist Martin West calls these monist principles "mindless gods," which suits them admirably.[1]

Adding limited agency to this tradition, Plato in his dialogue *Timaeus* described what he called the Demiurge, a divine Craftsman who shapes the material world after ideal Forms that exist on a perfect immaterial plane. And Plato's student Aristotle put his own twist on the concept, conceiving of God as an Unmoved Mover—a conception that would later, like Plato's Demiurge, profoundly influence Jewish and Christian theology.

Centuries would pass before the Jews assimilated Greek thought, and scholars suspect that it was Hellenized Jewish philosophers such as Philo of Alexandria who imported the Greek idea of a single unitary God into the Jewish tradition. Philo, who was educated in Platonic philosophy and lived in the lifetime of Jesus, wrote, "God is One, but he has around him numberless potencies . . . " Philo's "potencies" would soon become the angels and demons (including Satan) whom early Christians would equate with the traditional gods of Greek polytheism as Christianity split off from this evolving Jewish tradition.

So one indisputable thing the last century or so of scholarly work has uncovered about faith and reason is that they are hardly the rigidly separate traditions we commonly take them for. It's surprising for us, looking back, that reason came first. Even more surprising, perhaps, is how quickly monotheistic faith followed, starting with its first glimmering in the thought of Thales himself. As we perceive order in nature, it seems, we also gravitate to the One.

THE GREAT DIVIDE

YET THERE'S A BIG DIFFERENCE between sensing God in nature, as Thales and his successors did, and positing a God who stands above nature, as the God of faith does. To reconstruct the journey from one to the other, we need to push our imaginations into a place that's profoundly unfamiliar. It's nearly impossible for us to perceive the novelty of Thales' achievement, so deeply has it colored us all, however devoutly some of us may struggle to bleach it out. It sounds so normal to us (and if you're reading this, you're one of *us*): Thales and his successors recognized that there's a physical

world out there, that it's governed by orderly operations of its own, and that we don't need gods or spirits in order to explain how those operations work.

This extraordinarily powerful idea was, in fact, entirely unprecedented. For thousands of years before Thales, humanity encountered only one undifferentiated world, a world still inhabited today by some, it is true, though their numbers are dwindling. They're the ones not included in *us*. In this holistic world, matter and spirit are the same: people, places, objects, and events merge and mingle with the gods, goddesses, spirits, and demons who animate them. We saw a vivid example of this outlook during the solar eclipse over Asia in July 2009, when some local authorities closed schools and urged pregnant women to stay indoors to avoid ill effects as the evil spirit swallowed the Sun god.

The epic poems of Homer, the *Iliad* and the *Odyssey*, reflect the oral traditions of this sort of world. These poems established the classical Greek religious pantheon, in which the gods gleam brightly in the sunlight and the sea, rumble through the land as earthquakes, and darken the sky with clouds or eclipses. When Odysseus incurs the enmity of Poseidon, the sea god rouses himself in a terrible storm and wrecks Odysseus' ship. Odysseus spies land, but Poseidon's waves cast him violently up against the sharp rocks before hurling him back out to sea. With the help of his ally Athena, goddess of wisdom, Odysseus gathers his wits enough to swim along the shore, desperately looking for a place to land. Exhausted, at last he comes to "the mouth of a sweet-running river" that offers shelter from the rocks and wind. Odysseus prays directly to the river: "Hear me, Lord, whoever you are," he addresses the river, asking it—or rather asking *him*—to grant Odysseus sanctuary from Poseidon, the sea. And the river "stayed his current, stopped the waves breaking, and made all quiet in front of him."

Like the Olympians, the little river is amoral and not much interested in the human world, but it is susceptible to a properly formulated plea for sanctuary (Greek custom held that sanctuary had to be granted to a self-declared suppliant). More to the point, it's a god all on its own, a free agent, obeying its own will and desire. River and deity are one and the same.

Thales forever split this world, creating two separate conceptual realms, the natural and the supernatural—or in the common synecdoche, the seen and the unseen—that didn't exist before.

Rather, they existed, but the hard-and-fast conceptual boundary between them didn't. Putting up that boundary was the most significant act in the history of human thought.

In an influential essay called "The Fixation of Belief," the nineteenth-century pragmatist philosopher Charles Peirce describes the scientific method as resting on the following premises:

> There are real things, whose characters are entirely independent of our opinions about them; those realities affect our senses according to regular laws, and . . . by taking advantage of the laws of perception, we can ascertain by reasoning how things really are . . . .The new conception here involved is that of reality.[2]

Thales' new and self-evidently powerful way of thinking spread rapidly throughout Greece. It soon gave rise to many branches of learning that are still with us, including literary theory, rhetoric, political science, history, ethnology, medicine, botany, biology, and not least logic itself—the rules of naturalistic thinking. Where physical sciences attempt to explain raw material reality in naturalistic terms, these disciplines sought to explain various other aspects of reality (human social realities, for example, or realities of the plant or animal kingdoms) in the same way. Together, they established free rational inquiry as the entire realm of human endeavor aimed at explaining the revolutionary "new conception" of reality.

But Thales' significance doesn't end there. For in peeling the sensible from the insensible, the seen from the unseen, Thales didn't just invent reason. He also made it psychologically necessary for someone to invent faith as well. We can draw a direct line from Thales through Plato, whose Demiurge shapes the seen in the image of the unseen, to St. Paul, who denounced Greek philosophy and pointedly defined faith as "the conviction of things not seen," and to Muhammad, who dedicated the Qu'ran to "those who believe in the unseen." In what became programmatic messages for subsequent believers—and they became so, we must realize, because they resonated psychologically—Paul and Muhammad thus accepted and embraced the split between seen and unseen. Where Plato and Aristotle had tried to close the gap, the new faiths would own it. If Thales sensed God's presence in the seen, and Plato and Aristotle used God to try to mediate between the seen and unseen, the Christians and the Muslims triumphantly proclaimed God as the definitive victory of the unseen over the seen.

WHAT'S REALLY INTERESTING about Paul's definition of faith for the ages, which is found in the *Letter to the Hebrews*, is that Paul didn't actually write it. *Hebrews* was attributed to Paul by later figures such as Jerome and Augustine, who adored it. We don't know who did write it, but one leading possibility suggested by modern scholars is a certain Apollos, who is mentioned in *Acts*, and who may have been a student of Philo of Alexandria. What we have here, apparently, is a Jewish Platonic philosopher who has converted to Christianity, and who takes Plato's privileging of the unseen that extra step further. In the Greek, the word he uses is *elenchus*, a technical term familiar from the Platonic dialogues whose basic meaning is "ascertainment." As Charles Freeman translates this passage in *A New History of Early Christianity* (2009), faith is what "makes us certain of unseen realities." Freeman also writes that this letter possesses "a theological sophistication and coherence which is greater than anything found in the genuine letters of Paul."[3] I agree, and would add that its attribution to Paul underscores the point that the fate of religious messages depends less on their actual authorship than on their psychological resonance in succeeding ages. It would seem that Apollos (if that's who wrote *Hebrews*) really tapped into something.

Many Greek philosophers had been intensely skeptical of the gods and religion, and starting as early as the fifth century BC, we can discern a hostile religious backlash against rational inquiry in Greece. More than half a century ago, the classicist E. R. Dodds explored this phenomenon in his seminal book *The Greeks and the Irrational* (1951), in which he suggests, among other things, that such a backlash lay behind the Athenians' decision to condemn and execute Socrates for impiety. Although Dodds' book received wide approbation, his central insight—that rational inquiry and naturalistic thinking can provoke deep discomfort—has lain oddly fallow. Applying his idea to the broader sweep of history, however, suggests that the phenomenon of faith itself emerged from a similar reaction—not in mainstream Judaism, in other words, but only with the radically new splinter tradition that became Christianity as it was taken up by the larger Greco-Roman world.

The very same pagan world that first shrank away from reason's cold, impersonal touch became the earliest constituency of a loving, personal God. Once we have the story straight on who invented God and when, it's difficult to avoid the impression that religious faith took shape as a sort of point-by-point rejection of free rational inquiry and its premises.

And so rather than the transmission of an essential idea from one civilization to another, the rise of Christianity should be regarded as one stage of a long tug-of-war within a single civilization over the foundations of belief. What grounds should belief about "reality" rest on—the world of the senses, as painstakingly filtered through the net of logic, or the notionally deeper unseen "reality" of a world beyond the senses and mere human logic? Much hangs on how we answer this question, including how we interpret the last two and a half thousand years of Western civilization (which of course also happen to be the first two and a half thousand years of Western civilization).

Tellingly, "the fixation of belief" was never an issue before reason came along. No one cared what you believed when you offered a sacrifice or prayed to the gods. What was important was to say and do the appropriate things in the appropriate way. When Odysseus seeks sanctuary from the little river as he's being pounded by Poseidon's waves, he doesn't zealously affirm his belief that the river rose on the third day and is coeternal and consubstantial with its father. Instead, Odysseus simply asks for what he wants in a way that's calculated to get it. Affirmations of belief were alien to the polytheistic outlook for the very good reason that there's no point in affirming something everyone takes for granted. They were alien to Judaism for the same reason. The question for Abraham was not whether God exists—our idea of what "faith" is about—but whether Abraham would obey God. The question posed by Greek philosophy was whether the divine exists at all. Only when that sort of questioning starts does positive affirmation of something previously unquestioned become necessary. It was reason, with its pesky skepticism and even peskier inclination toward naturalistic explanation, that put belief on the table. And there it has stayed ever since.

Geoffrey Lloyd, a historian of science at Cambridge University, has spent his career examining the origins of Greek inquiry and comparing it with its counterparts in Babylonia, Egypt, and China. He emphasizes the writings of the Greek physician Hippocrates, Socrates' contemporary, who

offered for the first time in recorded history a blanket rejection of supernatural causation (rather than merely expressing skepticism of a particular individual or incidence). Lloyd also writes that one of the distinguishing marks of Greek thought is its remarkable self-consciousness, its "willingness to bring into the open and discuss second-order questions concerning the nature of the inquiry itself."[4] While some older cultures had progressed in areas like mathematics, astronomy, and medicine, the Greeks not only secularized them but also developed them into full-fledged intellectual disciplines with carefully defined methodologies. They didn't just explain things—they explained *how* they were explaining them. Always the key concept in these methodologies was the novel recognition that nature possesses regularity, that it's uniform and predictable.

Faith seems to answer reason's "second-order" quality with one of its own, as the research of Tufts University philosopher Daniel Dennett suggests. Dennett, whose 2006 bestseller *Breaking the Spell* put him in company with less temperate so-called "new atheists" such as Sam Harris, Richard Dawkins, and Christopher Hitchens, emphasizes the way that believers from all the monotheistic religions tend to rate any religious belief as better than none, even if it goes against their own belief. My exclusivity may rule out your God, in other words, but even your God is better than no God at all. Dennett calls this phenomenon "belief in belief"—the idea that religious belief itself is a positive good, whatever its specific content. So while the tradition of rational inquiry involves explanation about explanation, the tradition of exclusive monotheism involves belief about belief. If reason is second-order explanation, faith is second-order belief. And the key concept in faith seems to be the assurance that nature's regularity is illusory—precisely how being less important than the assurance itself. That's the opposite of the case with explanation, which is, of course, all about "precisely how." From this perspective, the phrase "secular explanation" begins to seem suspiciously redundant. Explanation and secularism may actually take in the same territory.

Where reason finds regularity in nature, faith extols miracles that overturn that regularity. In place of skepticism, faith exalts credulity. As Jesus told Doubting Thomas, "Blessed are those who believe without seeing." This exquisitely succinct put-down of the scientific outlook barely conceals something that feels quite a bit like irritation.

We may find some hints about the psychological wellspring of this old antagonism by comparing Greek thought with Chinese thought, which is often credited with having developed a separate scientific tradition around the same time as the Greeks. Yet we hesitate to call the Chinese tradition one of free inquiry, since Chinese inquiry was sponsored, and therefore controlled, by the Chinese state. Greek philosophers, by contrast, were independent writers and thinkers, not bureaucrats. It is entirely germane to their enthrallment to the state that Chinese thinkers never "split" the world the way Greek philosophers did. The Chinese tradition retained a holistic outlook, braiding natural and supernatural influences together even as it evolved in quite sophisticated ways. That allowed a measure of control, since one of the big advantages of supernatural causation, long recognized by the powerful, is that it can be arbitrarily dictated by authority, or indeed by anyone aspiring to authority, as (for example) Paul and Muhammad did.

The nascent discipline of evolutionary psychology offers scientific support for this analysis. In his book *Darwin's Cathedral*, David Sloan Wilson argues that supernatural thinking influenced group selection in human evolution, by promoting social cohesion. That would help explain the apparent fact that supernatural thinking is instinctive in humans, and would account for not only its astounding prevalence but also the profound indignation that can be aroused when it's sidelined.[5] In the historical record, the earliest such response was the notorious Diopeithes Decree outlawing astronomy and religious skepticism, which was enacted by popular vote in Athens just after the arrival of the first philosophers there in the mid-fifth century BC. It may have been this law which provided the legal context for the prosecution of Socrates several decades later. We see the social antagonism between religion and science as a recent phenomenon, but it's been there from the start.

Natural causation, evidence like this suggests, has the unsettling and potentially anarchic drawback of not being subject to human agendas. As Geoffrey Lloyd shows in his book *The Ambitions of Curiosity: Understanding the World in Ancient Greece and China* (2002), the Chinese tradition stressed practical application over theory, technology over explanation, results over understanding. Crucially, it avoided or marginalized concepts central to Greek thought such as natural causation, evidence, proof, demonstration, and—above all—the heavy hand of what would

eventually come to be known as "the laws of nature." Not having unsettled themselves with free inquiry, the Chinese never sought refuge in anything like monotheistic faith, either.

The great sinologist Joseph Needham, a strong defender of the Chinese achievement, recognizes this in explaining why China never underwent a Scientific Revolution comparable to the one that began much later in the West. "Europeans suffered from a schizophrenia of the soul," Needham writes with poetic insight, "oscillating for ever unhappily between the heavenly host on one side and the 'atoms and the void' on the other; while the Chinese, wise before their time, worked out an organic theory of the universe which included Nature and man, church and state, and all things past, present and to come. It may well be that here, at this point of tension, lies some of the secret of European creativeness when the time was ripe."[6] Needham's unhappy but creative "schizophrenia of the soul" originated in the unique step toward the "atoms and the void" taken by Greek thinkers beginning with Thales, but it was realized only in the opposing, and equally unique, step toward the "heavenly host" taken by later figures such as St. Paul.

The sharp end of the wedge that split the cosmos into seen and unseen, it seems clear, was the recognition of nature's regularity. We might even say that faith and reason both find their origins in the psychological consequences of this recognition. It's tempting to suggest a clear-cut correspondence, with faith stirred by the unconscious denial of natural laws and reason consonant with the unconscious acceptance of them. There may be something in that, although the distinction seems a little too clear-cut. Most of us, I should think, are to some extent pulled in both directions.

Yet there's no doubt that during the Greco-Roman era *something* began working a profound change in how people approached religion. As it percolated through society, amplified and disseminated by the filter of written philosophical tradition, the recognition of nature's regularity is the only real candidate for the catalyst behind that change. The most searching questions about the origins of faith hardly ever get asked: Why did belief take center stage, when properly performed ritual, not inner conviction about truth, was sufficient for the worshipper of the pagan gods? How did we go from a mainly "transactional" relationship with the divine (based on sacrifices offered for favors in this world), to a mainly "devotional" one (based on inner belief and trust in eternal salvation in the next world)? And how on earth did we get to the seemingly unlikely idea of one

exclusive god? Why was this idea so anomalous at first, and why is it so dominant now? Only by looking at the origins and spread of reason—at its insistent skepticism, at the novelty of its own truth claims, and especially at its germination in the recognition of nature's regularity—can we begin to answer these questions.

EXCLUSIVITY AND SUPERNATURALISM

IF SUPERNATURALISM exerted a "pull" toward faith, naturalism acted to "push" polytheism offstage. The moment that Thales even whispered the possibility of nature's regularity, the old gods, chaotic and unruly, were living on borrowed time. They were like outlaws in the Old West once the frontier was tamed. Long before Christianity took hold, pagan worshippers began to perceive the old gods not as full-blown individuals, but rather as different manifestations of a single godhead, a phenomenon that's been called "inclusive monotheism." As is now understood thanks to scholars like those whose work is represented in *Pagan Monotheism in Late Antiquity*, the perception that Christian "monotheism" replaced pagan "polytheism" comes from Christian propaganda. In fact, pagan critics such as Celsus, who wrote in the second century, charged Christians with not being "monotheistic" enough. Anticipating the critique made later by Muslims, Celsus thought the idea that God might have a son to be downright blasphemous. The gods had originally been flamboyant characters with clear-cut and quite distinct identities—promiscuous Zeus was known for having children with any mortal woman who caught his eye. By Celsus' time, such quirks and eccentricities had fallen to the leveling blade of reason like saplings before a bulldozer.

If paganism, too, was centered on belief by the second century (as Celsus and other sources suggest), what differentiated Christians from pagans in this crucial period of Christian growth? If the pressure of reason had transformed paganism, too, into a kind of monotheism, what was it that gave Christian faith an edge? One thing, no doubt, was Christianity's well-attested social support system—orphanages, food banks, and the like—which even pagans saw as worthy of emulation. But in a situation in which both pagans and Christians practiced belief-centered monotheism, Christianity's edge also came down to the difference between "inclusive" and "exclusive." As

inclusive monotheists, pagans remained as tolerant of the gods of others as they had always been. A worshipper of Isis was still open, for example, to worshipping Apollo—indeed, all the more so now that they were seen as representing different faces of the same ultimate divine presence. Christianity's exclusivity, by contrast, permanently removed its converts from the worship pool. As Ramsay MacMullen has pointed out, Christianity was unique in that it "destroyed belief as well as creating it."[7]

But I would suggest that exclusivity did more even than this scholarship has observed. Inclusive monotheism rolled the pagan gods into One, but like them that One remained firmly grounded in the old holistic world. Pluriform or uniform, the gods of nature could never fit comfortably in a world that had split the natural from the supernatural. Their worshippers had left them behind in this regard. Spooked by reason and by nature's regularity, the Greco-Roman world had for centuries been wandering further and further into the territory of the supernatural. In the late second century AD, as E. R. Dodds and many others since have noted, social and political turmoil turned this sojourn into a stampede. Only an exclusive God could fully meet the demands of a society in the grip of supernaturalism, because only an exclusive God could be said to stand above nature rather than merely being part of it. It's important to understand that in rejecting the pagan gods—as numerous writings from the early centuries of Christianity make crystal clear—Christians merely demoted them in rank to the level of demons, denying not their existence but their divinity. And since these demons were thought of as holding the natural world in their grip, the old gods were still the gods of nature. It's just that they had been literally demonized, and nature itself demoted with them. In this specific religious context, exclusivity constituted the precise adaptation that allowed faith to hit upon its most resonant message, the triumph of the unseen over the seen. With the exclusive and supernatural God, we take the final step toward the "heavenly host" that stands over against "the atoms and the void."

No wonder that Ramsay MacMullen, Bart Ehrman, and other recent scholars attribute Christianity's success in converting pagans to its emphasis on the reporting of, well, wonders. Miracles, the most flagrant possible denial of nature's regularity, begin gaining prominence in the historical sources around the fourth century BC, bobbing like little beacons in reason's turbulent

wake. By the time of Jesus, both pagan and Jewish miracle-workers were a dime a dozen. But Christian faith emphasized miracles in a way that was stunningly original in its rhetorical coherence and sophistication. The Gospels, the New Testament as a whole, and all of patristic literature are saturated with the wonder-working abilities not only of Jesus but also of his followers, through whom Jesus was said to work. And starting with the Gospels, Christian believers were explicitly commanded to accept the mere *report* of miracles as a demonstration of their own faith in the illusory quality of nature's regularity. This process seems to have begun with St. Paul and those (like the author of *Hebrews*) who followed him in giving faith its "second-order" comprehensiveness, exalting not just the supernatural power of one particular figure but the very idea of supernatural power itself. With this stroke, Christianity finally offered a coherent response to the challenge of radical naturalism initiated by Thales and first articulated by Hippocrates. Partly because Paul's are the earliest Christian writings that survive, this process has been blurred over time into "Paul's apostolic mission to the Gentiles," a historical elision that contains a hard kernel of truth.

It's safe to say that no civilization has ever been more obsessed with miracles than late antique and medieval Christendom. For more than a thousand years, until the Protestant Reformation, miracles stood as the unquestioned benchmark of religious credibility—and credulity—in the Christian world. The familiar exaltation of the other-worldly at the expense of the worldly was expressed with remarkable consistency, from the timeless frozen purity of Byzantine iconography to the writings of figures such as the Venerable Bede—who salts his eighth-century history of the English church with thrilling miracles on nearly every page, and who praises Caedmon, the first poet to write in English, as having "stirred the hearts of many folk to despise the world and aspire to heavenly things." This was, quite simply, the highest praise a medieval critic could offer. Medieval society's insistent supernaturalism—enforced by a powerful church that constantly policed the thinking of philosophers and didn't hesitate to burn heretics or unbelievers—amounts to nothing less than a wholesale cultural denial of nature's regularity. It went hand-in-hand with the demotion of nature itself. And neither can be adequately explained without reference to the original rise of reason in classical antiquity.

Yet the deep connections among reason, exclusivity, and supernaturalism go unremarked by the scholars who have described the latter two phenomena, seemingly without noticing the first. Where is the E. R. Dodds of the new millennium?

Strikingly, the issue at stake was not whether miracles occurred, but whose miracles were divinely sourced, and whose were merely demonic or magical. As Dodds put it, "The ancient debate on miracles was in the main a conflict not between believers and rationalists but between two sorts of believers."[8] This crucial insight underscores the degree to which naturalism was overwhelmed by the response that it had provoked—an utterly unprecedented flight into supernaturalism that spread across social and cultural lines, and of which Christianity made itself the prime beneficiary. Certainly, both the Hebrew God and the original pagan gods had been seen as capable of working wonders. But the scrutinizing lens of reason magnified the miracle to gigantic proportions. After all, you can't have a concept of "supernatural" unless you already have a concept of "natural"—but once you do, as Geoffrey Lloyd and others have observed, it follows right away. The stronger the bonds of nature are perceived to be, the stronger must be the power that bends or breaks them; the more concrete the boundary between natural and supernatural, the bigger the thrill of transgression. This psychological effect set the stage for the new prominence of miracles starting just before the Christian era. In the same way, it also ratcheted up the power and the glory of the new Christian God, whose totalizing authority makes not just Zeus but even the Old Testament God look rather anemic—if bad-tempered—by comparison.

Again, recent scholarship has described this vast difference in scale between the old gods and the new God, though as far as I'm aware without attempting much in the way of explanation. If we do wish to look for something that acted on religion in a way similar to steroids, in effect pumping up our conception of God and the divine, reason is a good place to start. There are likewise fruitful connections to explore between reason and the rising appetite in late antiquity for ethics and morality in religion. Nature is demonstrably amoral, and nature gods are hard to corral into a moral enclosure. This was another challenge from philosophy that paganism was genetically unequipped to meet, but that Judaism, and in particular the Jewish law, had bequeathed a genetic

advantage to Christianity in meeting—an advantage immeasurably strengthened, it would seem, by the complementary adaptations of exclusivity and "second-order" supernaturalism.

END TIMES: THE FINAL REVENGE

WE DON'T REALLY KNOW where the idea of exclusivity first came from, but there's a strong possibility that Christianity inherited it from the apocalyptic strand in Jewish tradition. A marginalized minority of a marginalized minority, Jewish apocalypticists were double outcasts, excluded from the official power structures of Jewish life. Not surprisingly, they preached that the world was ruled by evil powers, and that those powers would soon be overturned by divine vengeance, most often in a great eschatological upheaval. A world dominated by evil powers is the common thread that runs between exclusivity and apocalypticism, and recent scholars like Elaine Pagels and Bart Ehrman emphasize that both Jesus and Paul were apocalyptic preachers. Ehrman thinks that even in the time of Jesus, not all Jews were exclusive monotheists. Exclusivity may actually have infiltrated back into mainstream Judaism from the apocalyptic tradition that evolved into Christianity.

Whatever its precise origins, the idea of an exclusive God was crucial for Christianity's spread among the Gentiles, because it answered so many needs at once. It appropriated the pagans' own unitary god and trumped it, addressing paganism by offering a compelling rationale for rejecting the old gods; at the same time, it provided a resounding slap in the face to the naturalism that was always implicit in Greek philosophy, even if that naturalism was now being culturally swamped. Indeed, it was being swamped precisely because, then as now, it was so threatening to religious sentiment. Exclusivity fed into that reaction. Nature's regularity had melded the nature gods into One that enfolded many, but (as Thales saw) it also unavoidably implied doubt about divine agency. Rising supernaturalism allied itself with the blocked impulse to restore divine agency, but couldn't offer a new outlet for it. Exclusivity at once focused supernaturalism and cleared the way for divine agency, by demonizing the weakened gods and putting the one true God above them and their material realm.

In Darwinian terms, what I'm suggesting is that rational inquiry changed the religious environment, and that exclusive monotheism was the new class of religion that evolved as a result. Since religion's environment is in fact psychological, to explain how religious "mutations" become successful "adaptations" it's necessary to explain their psychological appeal. I've shown how exclusivity worked by appealing to and ultimately co-opting the rising tide of supernaturalism that reason left in its wake. Apocalypticism, exclusivity's seeming corollary, has long posed a fundamental psychological problem, but we can explain it in a similar way. It's easy to see how apocalypticism arose among a marginalized minority, and how it would appeal to Christianity's earliest pagan converts—women, slaves, the poor. But what was it about the apocalyptic outlook that gave it such broad and lasting appeal as exclusive monotheism was taken up by entire cultures and societies? Why would a sense of marginalization resonate with the mainstream, which by definition isn't marginal at all? Once more, we can look to reason and its psychological consequences for an answer. Apocalypticism's message of ultimate vindication for the marginalized resonated with the mainstream because the inherent authority of naturalistic explanation threatened to marginalize all religious accounts of reality, in a way analogous to that in which Jewish authorities had marginalized outcast preachers like Jesus and Paul. The Greek word *apocalypsis* is usually translated as "revelation." The original meaning of both words is "unveiling," or a bringing forth of the hidden—for true believers, this became the time when the unseen will literally come out of hiding to annihilate the seen in a final act of glorious revenge for being so brusquely pushed to the side. From an epistemological standpoint, all believers are marginalized in this world. In pinning its hopes on the next world, what faith reveals is the ancestral mark of religion's marginalization at the hands of reason.

It's no coincidence that apocalypticism has always been central to Islam as well as to Christianity, or that its darkest phantasms currently preoccupy many of the most enraged Islamists.[9] For religious extremists of all stripes, secularism and those who wish to accommodate it are always the biggest enemies. That goes for the Jewish settlers who believe their presence in the West Bank is part of God's plan and a prelude to apocalyptic war, as well as for their ostensibly unlikely political allies, the millions of American Christians who await "the rapture." It's been observed that the title

of the bestselling "Left Behind" series tells us precisely what "the rapture" is all about: feeling left behind. The End Times retain their original intoxicating flavor of revenge fantasy—which evolved first in a specific social context, but rapidly acquired broader appeal as cosmic payback for the outrage of naturalistic thinking.

RELIGION'S ANSWER TO THE CHALLENGE OF REASON

MY EXPLANATION of exclusive monotheism doesn't account for every feature of Christianity, or of post-Hellenistic Judaism, or of Islam. Nor does it suggest that the rise of Christianity was inevitable. But it does explain how the major features that these traditions tend to share—not just monotheism and exclusivity, but also supernaturalism and apocalypticism—evolved and spread, and it does so in a way that connects them in a coherent narrative. And perhaps it suggests that if Christianity had not emerged, some other tradition that possessed these adaptations is likely to have evolved sooner or later—possibly, like Christianity, from an apocalyptic Jewish cult.

It also explains why we don't see exclusive monotheism arising first in, say, Peru under the Incas, with free rational inquiry greeting the arrival of Buddhism in Tibet. Instead, we see them arising close together in both geography and time—the eastern Mediterranean world during the flowering of Greek thought. When we think about it this way, the idea that the origins of these two seminal and often opposed innovations might be unrelated strikes us as unlikely, to say the least. It presupposes a coincidence whose stark improbability has been ignored by recent historians of science and religion alike. On the contrary, without reason it's hard to see faith coming into existence at all. The tradition of exclusive monotheism, apparently, is how our religious instinct has expressed itself when confronted by the tradition of free rational inquiry. You don't get one without the other. In short, faith is religion's answer to the challenge of reason.

To put it another way, faith is the unassailable citadel to which religion withdrew after reason had overrun much of its original territory. And, let's be honest, storming religion's territory is what rational inquiry came into this world doing. In the face of such relentless, even terrifying,

psychological pressure, it makes sense that our collective embrace of the supernatural, if it was to persist without dissolving completely, would have to tighten to the point of obsessiveness.[10]

But faith is also a mobile citadel, a portable fortress. Having evolved precisely to occupy the territory inaccessible to reason, faith evolved mechanisms to move fluidly with the boundaries of that territory, or, as with apocalypticism, to blithely revise its truth claims about the imminent end of the world as fast as they're discredited by the world's contrarian perseverence. Faith's quicksilver essence can never be rationally pinned down: the harder you press, the faster it squirts out from under your finger. Like the alien monster in countless movies, faith only gets stronger every time you shoot at it.

If this model is correct in its psychology, monotheistic faith will spread across the globe together with reason—as indeed it seems to be doing already, whether through outright conversion or the subtle moulding of older traditions such as Hinduism and Buddhism into more monotheistic forms. Faith and reason help define the package we call Western civilization. We might even say that they *do* define it, and that they also account for its stunning global success. Joseph Needham compared the West's oscillation between faith and reason with schizophrenia, but perhaps the image of a dynamo better captures the creative aspects of the relationship that he also observed: faith and reason are two magnetic poles, and the cultural generator that spins around them throws off incendiary sparks and energizing currents.

For both good and ill, we might add. New atheist rants notwithstanding, the historical record shows that faith and reason stand equally ready to be invoked by the peaceful and the violent, the tolerant and the intolerant, alike. So perhaps we'd all better get used to both of them. After all, we gain something with the advent of reason, but we also leave something behind. There will always be those who celebrate what we've gained, just as there will always be those who yearn for what we've lost. It may well be that the creative tension between these two ways of knowing—between what we've gained and what we've lost—will forever define the bounds of human understanding.

NOTES

1. Polymnia Athanassiadi and Michael Frede, eds., *Pagan Monotheism in Late Antiquity* (Oxford 1999), 32. West, it should be noted, observes that Aristotle says nothing about the monistic conception of Water attributed to Thales by later sources. Even if we doubt Thales' monism, however, that of his immediate successors is secure.
2. Available online at http://www.cspeirce.com/menu/library/bycsp/fixation/fx-frame.htm (CP 5.384).
3. Charles Freeman, *A New History of Early Christianity* (New Haven 2009), 71.
4. G. E. R. Lloyd, *Magic, Reason and Experience: Studies in the Origins and Development of Greek Science* (London 1999), 232.
5. Group selection (like evolutionary psychology itself) remains controversial. In order to acknowledge that supernaturalism is instinctive, however, it's not necessary to establish a group-selective advantage for it. An alternative theory has it arising as a by-product of other traits.
6. Quoted in H. Floris Cohen, *The Scientific Revolution: A Historiographical Inquiry* (Chicago 1994), 462. See my letter, "Joseph Needham's Big Question," *The New York Review of Books* (18 December 2008), 98.
7. Ramsay MacMullen, *Christianizing the Roman Empire* (New Haven 1984), 108.
8. E. R. Dodds, *Pagan and Christian in an Age of Anxiety* (New York 1965), 124.
9. Not all, to be sure—Osama bin Laden and other jihadists tend not to use much apocalyptic rhetoric. It's significant that so many of them are engineers or other sorts of technicians by training, and that while they may garner limited approval for their acts, they attract no political constituency at all. Some Muslims may have cheered 9/11, but no one is lining up to reestablish the caliphate, which is the jihadists' proclaimed goal. Compare the jihadists' political impotence with the world's only functioning theocracy, Iran, where leaders from Khomeini to Ahmadinejad gained and held power by clothing an often quite secular political agenda in apocalyptic rhetoric.
10. See Daniel Lawrence O'Keefe's thought-provoking book *Stolen Lightning: The Social Theory of Magic* (New York 1983), which offers valuable sociological and psychological insights into the relationship between magic and religion. O'Keefe proposes that religion embodies the psychological pressure of society, and that magic represents the individual's defense against that potentially fatal pressure.