The God Project

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Scientists have championed an astonishing variety of views on religion, ranging from the outright hostile to the deeply devout. Even among evolutionary biologists, whose views might seem the most predictable, matters have been surprisingly complex. Richard Dawkins, the author of "The Selfish Gene" and many other popular books on evolution, has in recent years become something of a professional atheist, arguing that "faith is one of the world's great evils." The late paleontologist Stephen Jay Gould, on the other hand, argued in his book "Rocks of Ages" that science and religion can and should coexist. Science has its proper domain of activity, religion has its domain, and each must refrain from interfering with the other.

The religious opinions of scientists are, of course, a separate matter from a science of religion. And yet, whatever else religion may be, it's something that happens in the real world in real time. So why not approach it as a natural process? Why not study it scientifically? This is the task that Daniel Dennett sets for himself in his ambitious new book, "Breaking the Spell: Religion as a Natural Phenomenon" (Viking; $25.95). Dennett, a philosopher, is steeped in science, especially evolutionary biology, and he has written several books and articles with a Darwinian focus. In the most popular of them, "Darwin's Dangerous Idea," Dennett proclaimed that natural selection is "the single best idea anyone has ever had" and argued that Darwinism is a universal theory that helps to explain not only the deep history of life but the twists and turns of human cultural change. Given his enthusiasm for all things evolutionary, and given that he calls himself a "godless philosopher," you might expect "Breaking the Spell" to be an extended exercise in debunking belief. It is not—at least, not ostensibly. Dennett's approach to religion is reasonably respectful, though a certain bombast breaks through now and then. Writing for a general audience, Dennett insists that he wants to engage religious readers in a rational discussion, not turn them away.

"Breaking the Spell" ranges widely, perhaps too widely. It surveys the state of religion in contemporary America, considers whether believers are happier or more moral than nonbelievers, discusses the rise of modern nondenominational spirituality, and briefly reviews the purported philosophical proofs for the existence of God. But all these topics have been widely discussed, and Dennett has little new to say about them; his real contribution is an accessible account of what might be called the natural history of religion. (Religion, as he provisionally defines it, involves believing in, and seeking the approval of, a supernatural being.) "There was a time," he writes, "when there was no religion on this planet, and now there is lots of it. Why?" Why did religion appear in the first place? And why did certain religions spread while others sank into obscurity?

To answer these questions, Dennett says, we must confront two spells. The first is the taboo against asking uncomfortable questions about religion. In his view, religion is simply too important to be spared hard questions. Indeed, he argues, religion is among the most powerful forces on earth and, as religiously inspired warfare and acts of terrorism remind us, it is not always benign. The second spell, in Dennett's account, is one cast by religion itself. Do we risk dimming religion's numinous glow by the very act of scientific analysis? Will we, out of what Dennett calls a "pathological

excess of curiosity," rob believers of the deepest and most important part of their lives? Dennett is sensitive to this concern and concedes the danger, but he concludes that the chances of undermining religious sensibility are slight. He assures his readers that one can approach religion as a natural phenomenon without, for example, prejudging the question of God's existence. Indeed, it is entirely possible that a scientific analysis might reveal religious phenomena that can't be explained by natural means. Dennett maintains that a scientific study of religion does not exclude the possibility that religious beliefs are true. Whether the results of such a study will provide any support for religion is, of course, another matter.

According to Dennett, the earliest stages of religion were likely characterized by speculations about supernatural or quasi-natural beings. These questions arose out of an aspect of human nature we take for granted: the recognition that the world contains not only other bodies but also other minds. We recognize, in other words, that the world includes "agents," independent minds that possess their own sets of beliefs and desires. This recognition allows us a wide range of cognitive moves and countermoves presumably unavailable to most other species: "I know he thinks that I have a stone in my hand." The ability to attribute agency is, Dennett says, almost surely an evolutionary adaptation. It is probably encoded genetically in our species (no one taught you that other minds populate the planet), and it plays a key role in everything from fighting ("He doesn't know that I dropped the stone") to seduction ("Would you like to see my cave paintings?"). But its appearance during evolution led to an unexpected possibility: attributing agency where no agent exists. Human beings are skilled at positing agents—whispering winds, turnip ghosts, and monsters under the bed—for which the evidence is less than overwhelming, and this tendency might explain why nearly all peoples talk about creatures like elves and goblins. As Dennett acknowledges, however, this tendency falls short of explaining full-blown religion. Elves are the stuff of superstition, not of belief systems attended by elaborate social strictures, rituals, and theologies.

Explaining the emergence of real religion requires a different kind of approach, and here things get complicated. A mind-boggling number of explanations, some biological and some economic, have been introduced over the past decade or so. One was championed by the evolutionary theorist David Sloan Wilson in his 2002 book, "Darwin's Cathedral." Wilson suggested that religion is a kind of adaptation that evolved by "multilevel selection." Most biologists think that evolution is propelled by natural selection at one level only: among competing individuals. A polar bear that was whiter than its peers, say, could sneak up undetected on potential prey more often than darker bears could, and was thus likelier to survive and leave more progeny. Assuming that the difference between whiter and darker bears was due to a difference in genes, the genes for whiter bears would grow more common and those for darker bears less so.

According to Wilson, though, evolution sometimes involves natural selection among competing *groups* of individuals. Consider "predator inspection" in guppies. If a potential predator approaches a school of guppies, one or two fish may peel away from the

group, inspect the intruder, and then (if their luck holds) return to the school, reporting on the danger. Predator inspection is paradoxical. Why would a guppy take on such a risky assignment? Why be an altruist? Group selection provides a possible answer. Predator inspection might evolve not because inspectors leave more progeny than non-inspectors *within* a group—traditional individual selection—but because groups that include inspectors survive better than groups that don't. Although Wilson doesn't think that all evolution involves group selection, he thinks that group selection plays a big enough role that a realistic theory of evolution must allow for both individual and group selection.

Applying this theory to our own species, Wilson argued that religion is an adaptation of human groups in the same way that the heart is an adaptation of human individuals. Religion is, in his account, a collection of beliefs and behaviors that brings people together, coördinates their activities, and, in the end, allows groups to accomplish tasks that would otherwise be impossible. If my group's religion is better at this than yours, my group and its religion will spread and yours will recede. Wilson suggested, for instance, that the early Christian Church succeeded against all odds because its creed of selflessness provided its adherents with a sort of welfare state. Christians banded together, aiding each other through illness, famine, and war. The resulting biological edge, he thinks, played a part in the unexpected success of this once obscure mystery cult.

In "Breaking the Spell," Dennett tentatively proposes another theory that, like Wilson's, involves natural selection with a twist. Under Wilson's theory, the beneficiaries of natural selection are groups of human beings. Under Dennett's, the beneficiaries are religious "memes." A meme, a term introduced by Richard Dawkins, is any idea or practice—any thought, song, or ritual—that can replicate from one brain to another. When you whistle a jingle from a commercial, it's because the jingle meme has successfully replicated and now resides in a new brain, yours. According to Dennett, memes let us lift Darwinism from its historical base in biology to the realm of human culture. The meme, he says, may underlie cultural evolution in the same way the gene underlies biological evolution. Just as some genes grow more common and others less common, so some memes grow more common ("You're fired!") and others less common ("Is that your final answer?"). Dawkins often thought of memes as mental viruses, selfish parasites on human minds; Dennett, by contrast, emphasizes that they can be benign, or even good for their hosts.

Bringing the nascent science of "memetics" to bear on religion, Dennett goes on to argue that religious memes that encourage group solidarity might outcompete memes that are less adept at encouraging solidarity, especially when human survival depends on cooperation. His reasoning is that the success of a cooperative group is great advertising for that group's memes. To take a secular example, liberal Western ideas like democracy and free markets might spread not because other nations are persuaded by principled arguments in favor of these ideas but because Western nations survive and prosper, which prompts others to emulate them. If you find it hard to believe that the

beneficiaries of religion aren't human beings but the memes they carry, Dennett asks you to consider what Christians themselves claim to value more than their lives: the Word. "Spreading the Word of God is their *summum bonum*, and if they are called to forgo having children and grandchildren for the sake of spreading the Word, that is the command they will try hard to obey." Dennett also argues that you can help a religion grow even if you don't believe in God. People can become conscious stewards of memes they happen to consider benevolent, and, in the case of religion, the result might be a bloodless "belief in belief." People who aren't sure about God may nonetheless be sure that religion is good for society and so encourage its spread.

Finally, Dennett describes a recent theory according to which the spread of religions reflects the action not of Charles Darwin's natural selection but of Adam Smith's invisible hand. As the rational-choice theorists Rodney Stark and Roger Finke argued in their book "Acts of Faith" (2000), human beings, when confronted with imperfect information, behave in a way that is generally rational. So if you believe (rightly or wrongly) that there is a God, it can be perfectly rational for you to engage in exchange with this well-heeled partner (even if the commodity you most desire can be delivered only post mortem). Stark and Finke are not, then, so much concerned with why people believe in God as with how believers act and why religious institutions spread. Their key claim is that churches mediate the complex exchanges between mortals and their gods. People go to church, in other words, for much the same reason they hire a real-estate agent: when something important is at stake in a complex transaction, it pays to get professional help.

This theory may explain, as a corollary, why a larger percentage of Americans attend church than do, say, Western Europeans. The reason, according to Stark and Finke, is that Americans enjoy a free market in religion. While we have more than a thousand denominations, Europeans often have centrally planned state religions that put barriers in the way of competition and provide little in the way of diverse religious products. "The American religious economy," Stark and Finke conclude, "surpasses Adam Smith's wildest dreams about the creative forces of a free market."

So what has the science of religion shown? Why did religion appear and why did certain religions spread while others vanished? Surprisingly, Dennett doesn't claim to know the answers, and he picks no winners among the accounts he surveys, including his own. Scientists, he says, have provided us with a reasonable "family of proto-theories," but we have little basis for choosing among its members. This conclusion, though disappointing, is, I think, correct. The incipient science of religion faces at least two problems. The first is that some of the theories offered so far, especially the evolutionary ones, invoke processes or entities that are controversial even outside the context of religion. Many evolutionists are skeptical about Wilson's idea of group selection, for instance, even when considering guppies, much less Jonah and the whale. One reason is that natural selection at the individual level will typically overwhelm selection at the group level: because individuals are born and die faster than groups reproduce or go extinct, evolution will usually move in the direction preferred by individual selection.

(The behavior of those guppies can also be explained without group selection, via a theory called reciprocal altruism—a version of "You scratch my back, I'll scratch yours.")

Similarly, many evolutionary biologists dismiss memes and memetics as little more than pseudoscientific wordplay. For one thing, the analogy between genes and memes is notoriously weak. Genes mutate rarely; memes mutate rapidly. Genes are digital (they're made of DNA, which is made of four distinct chemicals); memes aren't. Nor has memetics produced any persuasive explanations of previously unexplained phenomena. Though Dennett maintains that his theory requires only a modest, "sober" version of memes, and though he properly takes to task those enthusiasts who believe that they possess a robust science, his account of religion nonetheless turns on an entity that many scientists don't believe in. The existence of a God meme is no better established than the existence of God.

Another problem with choosing among the existing theories is empirical, not theoretical. At the moment, we don't have the data that might allow us to reject one theory and endorse another. The critical question is whether there is hope for progress. Here Dennett seems far too easy on his enterprise. "Breaking the Spell" is rife with claims about the testability of these new theories, and certainly each theory allows some predictions. Stark and Finke's, in particular, has made, and stood up to, a number of them. But progress will require predictions that are testable in the real world and that also distinguish among the various theories. Just what predictions let us determine whether religion spread by selection among groups of human beings or by selection among the memes these groups happened to carry? Dennett doesn't say, and it's hard to imagine what the answer would look like. Near the end of his book, he merely asserts that "getting down to specifics and generating further testable hypotheses is work for the future." But the origin and diffusion of religion, like the origin and diffusion of music, laughter, and xenophobia, reside in a largely irretrievable evolutionary past. We know virtually nothing about the religion, if any, practiced by our ancestors on the African savanna hundreds of thousands of years ago. It's far from obvious that explaining unprovable beliefs with unprovable theories constitutes progress.

Even if a science of religion could reach firm conclusions, what would it mean for religion itself? Exactly what would follow for the faithful? At one extreme, the Dawkinses of the world argue that a scientific accounting of the origin and evolution of religious memes should destroy belief. At the other, the Goulds argue that, because science and religion have separate provinces, no proper scientific finding can touch religion.

Neither of these extremes seems tenable. It would be naïve to deny that science can inform, and sometimes challenge, our view of religion. To take a trivial example, perhaps the earliest finding from the natural history of religion was that different peoples appeal to different gods. Any honest Christian or Jew must admit that, had he been born half a world away, he'd be an honest Hindu or Buddhist. This finding suggests at least some adjustment to more innocent views of the inevitability of one's

faith. But believers often seem happy to make these sorts of adjustments and remain perfectly faithful. For some people, the spell cast by religion seems to have less to do with the particular claims made by a particular tradition than with larger metaphysical claims: the universe has a purpose, God exists, or life is sacred. So the more serious question is whether a science of religion—indeed, whether science in general—can undermine these sorts of beliefs.

Science can certainly undermine particular factual claims made by religion (the universe was created in six days), but it's far less clear that it can challenge religion's general metaphysical claims (the universe has a purpose). To insist on this distinction is to recognize what it means for something to be a metaphysical, not a physical, claim. What experiment could prove that the universe has no purpose? To suppose that a kind of physics can demolish a kind of metaphysics is to commit what philosophers call a category mistake. Dennett is right to emphasize that his scientific analysis doesn't require us to prejudge religion's metaphysical claims, but that's only half the story. It doesn't let us post-judge them, either.

This point is connected to a distinction often made by philosophers of science between "methodological naturalism" (science is a set of approaches to the world in which only naturalistic explanations may be considered) and "metaphysical naturalism" (science describes the ultimate state or meaning of the world). As many philosophers and scientists argue, the first approach doesn't justify the second. Science, they claim, is not in the business of issuing position papers on metaphysics.

It's remarkably hard to tell if Dennett would agree with that conclusion. Indeed, this is one of the more frustrating aspects of "Breaking the Spell." To the religious reader, after all, this is probably the only issue that matters. Dennett's relative neglect of it is particularly surprising given that some of the scholars he discusses are so unequivocal on the subject. Stark and Finke, for example, state that any conclusion about whether religion is true or false is "beyond science." They simply hope to study "the relationship between human beings and what they experience as divine," and science, they say, can "examine any aspect of that relationship except its authenticity."

Dennett's apparent reluctance to say what can, and cannot, follow logically from a science of religion would seem to be more than mere oversight. Although Dennett takes great pains early in his book to assure his readers that they needn't question the validity of religion to join in his analysis, it's clear that he hopes they will ultimately render a judgment. And it's equally clear what he hopes that judgment will be. ("Many readers . . . will see me as just another liberal professor trying to cajole them out of some of their convictions, and they are dead right about that—that's what I am and that's exactly what I'm trying to do.")

None of this is to say that Dennett's preferred outcome is wrong. Religious beliefs, including those abstract ones having little relation to any particular tradition, may well be mistaken. But it seems clear that any such conclusion must come from someplace other than science. Of course, even if a line can be drawn between physics and metaphysics, it wouldn't make all our difficulties disappear. Religion is much more

than a collection of transcendental and untestable assertions. It's also a potent social and political force and, like any such force, it is sometimes prone to excess. The result is the usual roster of ills: intolerance, fanaticism, and, yes, terrorism. But it seems doubtful that solutions to these problems will emerge from anyone's laboratory.

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