

I described three common ways in which people flip the hive switch: awe in nature, Durkheimian drugs, and raves. I described recent findings about oxytocin and mirror neurons that suggest that they are the stuff of which the hive switch is made. Oxytocin bonds people to their groups, not to all of humanity. Mirror neurons help people empathize with others, but particularly those that share their moral matrix.

It would be nice to believe that we humans were designed to love everyone unconditionally. Nice, but rather unlikely from an evolutionary perspective. Parochial love—love within groups—amplified by similarity, a sense of shared fate, and the suppression of free riders, may be the most we can accomplish.

## ELEVEN

## Religion Is a Team Sport

Every Saturday in the fall, at colleges across the United States, millions of people pack themselves into stadiums to participate in a ritual that can only be described as tribal. At the University of Virginia, the ritual begins in the morning as students dress in special costumes. Men wear dress shirts with UVA neckties, and if the weather is warm, shorts. Women typically wear skirts or dresses, sometimes with pearl necklaces. Some students paint the logo of our sports teams, the Cavaliers (a *V* crossed by two swords), on their faces or other body parts.

The students attend pregame parties that serve brunch and alcoholic drinks. Then they stream over to the stadium, sometimes stopping to mingle with friends, relatives, or unknown alumni who have driven for hours to reach Charlottesville in time to set up tailgate parties in every parking lot within a half mile of the stadium. More food, more alcohol, more face painting.

By the time the game starts, many of the 50,000 fans are drunk, which makes it easier for them to overcome self-consciousness and participate fully in the synchronous chants, cheers, jeers, and songs that will fill the next three

hours. Every time the Cavaliers score, the students sing the same song UVA students have sung together on such occasions for over a century. The first verse comes straight out of Durkheim and Ehrenreich. The students literally lock arms and sway as a single mass while singing the praises of their community (to the tune of "Auld Lang Syne"):

*That good old song of Wah-hoo-wah—we'll sing it o'er  
and o'er  
It cheers our hearts and warms our blood to hear them  
shout and roar  
We come from old Virgin-i-a, where all is bright and gay  
Let's all join hands and give a yell for dear old U-V-A.*

Next, the students illustrate McNeill's thesis that "muscular bonding" warms people up for coordinated military action.<sup>1</sup> The students let go of each other's arms and make aggressive fist-pumping motions in the air, in sync with a nonsensical battle chant:

*Wah-hoo-wah! Wah-hoo-wah! Uni-v,  
Virgin-i-a!  
Hoo-rab-ray! Hoo-rab-ray! Ray, ray—  
U-V-A!*

It's a whole day of hiving and collective emotions. Collective effervescence is guaranteed, as are feelings of collective outrage at questionable calls by the referees, collective triumph if the team wins, and collective grief if the team loses, followed by more collective drinking at postgame parties.

Why do the students sing, chant, dance, sway, chop, and stomp so enthusiastically during the game? Showing support for their football team may help to motivate the players, but is that the *function* of these behaviors? Are they done *in order*

to achieve victory? No. From a Durkheimian perspective these behaviors serve a very different function, and it is the same one that Durkheim saw at work in most religious rituals: *the creation of a community*.

A college football game is a superb analogy for religion.<sup>2</sup> From a naive perspective, focusing only on what is most visible (i.e., the game being played on the field), college football is an extravagant, costly, wasteful institution that impairs people's ability to think rationally while leaving a long trail of victims (including the players themselves, plus the many fans who suffer alcohol-related injuries). But from a sociologically informed perspective, it is a religious rite that does just what it is supposed to do: it pulls people up from Durkheim's lower level (the profane) to his higher level (the sacred). It flips the hive switch and makes people feel, for a few hours, that they are "simply a part of a whole." It augments the school spirit for which UVA is renowned, which in turn attracts better students and more alumni donations, which in turn improves the experience for the entire community, including professors like me who have no interest in sports.

Religions are social facts. Religion cannot be studied in lone individuals any more than hivishness can be studied in lone bees. Durkheim's definition of religion makes its binding function clear:

A religion is a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden—beliefs and practices which unite into one single moral community called a Church, all those who adhere to them.<sup>3</sup>

In this chapter I continue exploring the third principle of moral psychology: *Morality binds and blinds*. Many scientists misunderstand religion because they ignore this principle and



examine only what is most visible. They focus on individuals and their supernatural beliefs, rather than on groups and their binding practices. They conclude that religion is an extravagant, costly, wasteful institution that impairs people's ability to think rationally while leaving a long trail of victims. I do not deny that religions do, at times, fit that description. But if we are to render a fair judgment about religion—and understand its relationship to morality and politics—we must first describe it accurately.

#### THE LONE BELIEVER

When nineteen Muslims hijacked four planes and used them to destroy the World Trade Center and a section of the Pentagon, they forced into the open a belief that many in the Western world had harbored since the 1980s: that there is a special connection between Islam and terrorism. Commentators on the right were quick to blame Islam. Commentators on the left were just as quick to say that Islam is a religion of peace and that the blame should be placed on fundamentalism.<sup>4</sup>

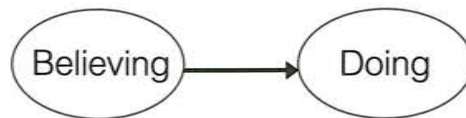
But an interesting rift opened up on the left. Some scientists whose politics were otherwise quite liberal began to attack not just Islam but all religions (other than Buddhism).<sup>5</sup> After decades of culture war in the United States over the teaching of evolution in public schools, some scientists saw little distinction between Islam and Christianity. All religions, they said, are delusions that prevent people from embracing science, secularism, and modernity. The horror of 9/11 motivated several of these scientists to write books, and between 2004 and 2007, so many such books were published that a movement was born: the New Atheism.

The titles were combative. The first one out was Sam Har-

ris's *The End of Faith: Religion, Terror, and the Future of Reason*, followed by Richard Dawkins's *The God Delusion*, Daniel Dennett's *Breaking the Spell: Religion as a Natural Phenomenon*, and, with the most explicit title of all, Christopher Hitchens's *God Is Not Great: How Religion Poisons Everything*. These four authors are known as the four horsemen of New Atheism, but I'm going to set Hitchens aside because he is a journalist whose book made no pretense to be anything other than a polemical diatribe. The other three authors, however, are men of science: Harris was a graduate student in neuroscience at the time, Dawkins is a biologist, and Dennett is a philosopher who has written widely on evolution. These three authors claimed to speak for science and to exemplify the values of science—particularly its open-mindedness and its insistence that claims be grounded in reason and empirical evidence, not faith and emotion.

I also group these three authors together because they offer similar definitions of religion, all focusing on belief in supernatural agents. Here is Harris: "Throughout this book, I am criticizing faith in its ordinary, scriptural sense—as belief in, and life orientation toward, certain historical and metaphysical propositions."<sup>6</sup> Harris's own research examines what happens in the brain when people believe or disbelieve various propositions, and he justifies his focus on religious belief with this psychological claim: "A belief is a lever that, once pulled, moves almost everything else in a person's life."<sup>7</sup> For Harris, beliefs are the key to understanding the psychology of religion because in his view, believing a falsehood (e.g., martyrs will be rewarded with seventy-two virgins in heaven) makes religious people do harmful things (e.g., suicide bombing). I've illustrated Harris's psychological model in figure 11.1.

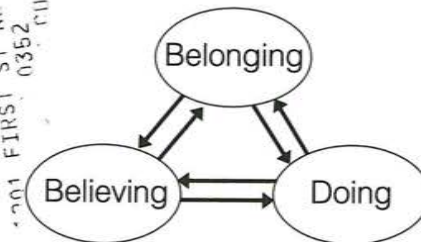
Dawkins takes a similar approach. He defines the "God Hypothesis" as the proposition that "there exists a superhu-

FIGURE 11.1. *The New Atheist model of religious psychology.*

man, supernatural intelligence who deliberately designed and created the universe and everything in it, including us.”<sup>8</sup> The rest of the book is an argument that “God, in the sense defined, is a delusion; and, as later chapters will show, a pernicious delusion.”<sup>9</sup> Once again, religion is studied as a set of beliefs about supernatural agents, and these beliefs are said to be the cause of a wide range of harmful actions. Dennett takes that approach too.<sup>10</sup>

Supernatural agents do of course play a central role in religion, just as the actual football is at the center of the whirl of activity on game day at UVA. But trying to understand the persistence and passion of religion by studying beliefs about God is like trying to understand the persistence and passion of college football by studying the movements of the ball. You’ve got to broaden the inquiry. You’ve got to look at the ways that religious beliefs work with religious practices to create a religious community.<sup>11</sup>

Believing, doing, and belonging are three complementary yet distinct aspects of religiosity, according to many scholars.<sup>12</sup> When you look at all three aspects at the same time, you get a view of the psychology of religion that’s very different from the view of the New Atheists. I’ll call this competing model the Durkheimian model, because it says that the function of those beliefs and practices is ultimately to create a community. Often our beliefs are post hoc constructions designed to justify what we’ve just done, or to support the groups we belong to.

FIGURE 11.2. *The Durkheimian model of religious psychology.*

The New Atheist model is based on the Platonic rationalist view of the mind, which I introduced in chapter 2: Reason is (or at least could be) the charioteer guiding the passions (the horses). So as long as reason has the proper factual beliefs (and has control of the unruly passions), the chariot will go in the right direction. In chapters 2, 3, and 4, however, I reviewed a great deal of evidence against the Platonic view and in favor of a Humean view in which reason (the rider) is a servant of the intuitions (the elephant).

Let’s continue the debate between rationalism and social intuitionism as we examine religion. To understand the psychology of religion, should we focus on the false beliefs and faulty reasoning of individual believers? Or should we focus on the automatic (intuitive) processes of people embedded in social groups that are striving to create a moral community? That depends on what we think religion is, and where we think it came from.

#### THE NEW ATHEIST STORY: BY-PRODUCTS, THEN PARASITES

To an evolutionist, religious behaviors “stand out like peacocks in a sunlit glade,” as Dennett put it.<sup>13</sup> Evolution ruth-



lessly eliminates costly and wasteful behaviors from an animal's repertoire (over many generations), yet, to quote Dawkins, "no known culture lacks some version of the time-consuming, wealth-consuming, hostility-provoking rituals, the anti-factual, counterproductive fantasies of religion."<sup>14</sup> To resolve this puzzle, either you have to grant that religiosity is (or at least, used to be) beneficial or you have to construct a complicated, multistep explanation of how humans in all known cultures came to swim against the tide of adaptation and do so much self-destructive religious stuff. The New Atheists choose the latter course. Their accounts all begin with a discussion of multiple evolutionary "by-products" that explain the accidental origin of God beliefs, and some then continue on to an account of how these beliefs evolved as sets of parasitic memes.<sup>15</sup>

The first step in the New Atheist story—one that I won't challenge—is the hypersensitive agency detection device.<sup>16</sup> The idea makes a lot of sense: we see faces in the clouds, but never clouds in faces, because we have special cognitive modules for face detection.<sup>17</sup> The face detector is on a hair trigger, and it makes almost all of its mistakes in one direction—false positives (seeing a face when no real face is present, e.g., ☺), rather than false negatives (failing to see a face that is really present). Similarly, most animals confront the challenge of distinguishing events that are caused by the presence of another animal (an agent that can move under its own power) from those that are caused by the wind, or a pinecone falling, or anything else that lacks agency.

The solution to this challenge is an agency detection module, and like the face detector, it's on a hair trigger. It makes almost all of its mistakes in one direction—false positives (detecting an agent when none is present), rather than false negatives (failing to detect the presence of a real agent). If you want to see the hypersensitive agency detector in action, just

slide your fist around under a blanket, within sight of a puppy or a kitten. If you want to know why it's on a hair trigger, just think about which kind of error would be more costly the next time you are walking alone at night in the deep forest or a dark alley. The hypersensitive agency detection device is finely tuned to maximize survival, not accuracy.

But now suppose that early humans, equipped with a hypersensitive agency detector, a new ability to engage in shared intentionality, and a love of stories, begin to talk about their many misperceptions. Suppose they begin attributing agency to the weather. (Thunder and lightning sure make it *seem* as though somebody up in the sky is angry at us.) Suppose a group of humans begins jointly creating a pantheon of invisible agents who cause the weather, and other assorted cases of good or bad fortune. Voilà—the birth of supernatural agents, not as an adaptation for anything but as a by-product of a cognitive module that is otherwise highly adaptive. (For a more mundane example of a by-product, think about the bridge of the nose as an anatomical feature useful for holding up eyeglasses. It evolved for other reasons, but we humans reuse it for an entirely new purpose.)

Now repeat this sort of analysis on five or ten more traits. Dawkins proposes a "gullible learning" module: "There will be a selective advantage to child brains that possess the rule of thumb: believe, without question, whatever your grown-ups tell you."<sup>18</sup> Dennett suggests that the circuitry for falling in love has gotten commandeered by some religions to make people fall in love with God.<sup>19</sup> The developmental psychologist Paul Bloom has shown that our minds were designed for dualism—we think that minds and bodies are different but equally real sorts of things—and so we readily believe that we have immortal souls housed in our temporary bodies.<sup>20</sup> In all cases the logic is the same: a bit of mental machinery evolved because it conferred a real benefit, but the machin-



ery sometimes misfires, producing accidental cognitive effects that make people prone to believing in gods. *At no point* was religion itself beneficial to individuals or groups. *At no point* were genes selected because individuals or groups who were better at "goddling" outcompeted those who failed to produce, fear, or love their gods. According to these theorists, the genes for constructing these various modules were all in place by the time modern humans left Africa, and *the genes did not change in response to selection pressures* either for or against religiosity during the 50,000 years since then.

The gods changed, however, and this brings us to the second step of the New Atheist story: cultural evolution. Once people began to believe in supernatural agents, and to talk about them and transmit them to their children, the race was on. But the race was not run by people or genes; it was a race among the various supernatural *concepts* that people generated. As Dennett put it:

The memorable nymphs and fairies and goblins and demons that crowd the mythologies of every people are the imaginative offspring of a hyperactive habit of finding agency wherever anything puzzles or frightens us. This mindlessly generates a vast overpopulation of agent-ideas, most of which are too stupid to hold our attention for an instant; only a well-designed few make it through the rehearsal tournament, mutating and improving as they go. The ones that get shared and remembered are the souped-up winners of billions of competitions for rehearsal time in the brains of our ancestors.<sup>21</sup>

To Dennett and Dawkins, religions are sets of memes that have undergone Darwinian selection.<sup>22</sup> Like biological traits, religions are heritable, they mutate, and there is selection among these mutations. The selection occurs not on the basis of the benefits religions confer upon individuals or groups but on the basis of their ability to survive and reproduce themselves. Some religions are better than others at hijacking the human mind, burrowing in deeply, and then getting themselves transmitted to the next generation of host minds. Dennett opens *Breaking the Spell* with the story of a tiny parasite that commandeers the brains of ants, causing them to climb to the tops of blades of grass, where they can more easily be eaten by grazing animals. The behavior is suicide for the ant, but it's adaptive for the parasite, which requires the digestive system of a ruminant to reproduce itself. Dennett proposes that religions survive because, like those parasites, they make their hosts do things that are bad for themselves (e.g., suicide bombing) but good for the parasite (e.g., Islam). Dawkins similarly describes religions as viruses. Just as a cold virus makes its host sneeze to spread itself, successful religions make their hosts expend precious resources to spread the "infection."<sup>23</sup>

These analogies have clear implications for social change. If religion is a virus or a parasite that exploits a set of cognitive by-products for its benefit, not ours, then we ought to rid ourselves of it. Scientists, humanists, and the small number of others who have escaped infection and are still able to reason must work together to break the spell, lift the delusion, and bring about the end of faith.



# A BETTER STORY: BY-PRODUCTS, THEN CULTURAL GROUP SELECTION

Scientists who are not on the New Atheist team have been far more willing to say that religion might be an adaptation (i.e., it might have evolved because it conferred benefits on individuals or groups). The anthropologists Scott Atran and Joe Henrich recently published a paper that tells a more nuanced story about the evolution of religiosity, one that is consistent with a broader set of empirical findings.<sup>24</sup>

Like the New Atheists, their story has two steps, and the first step is the same: a diverse set of cognitive modules and abilities (including the hypersensitive agency detector) evolved as adaptations to solve a variety of problems, but they often misfired, producing beliefs (such as in supernatural agents) that then contributed (as by-products) to the earliest quasi-religious behaviors. These modules were all in place by the time humans began leaving Africa more than 50,000 years ago. As with the New Atheists, this first step was followed by a second step involving cultural (not genetic) evolution. But instead of talking about religions as parasitic memes evolving for their own benefit, Atran and Henrich suggest that religions are sets of cultural innovations that spread to the extent that they make groups more cohesive and cooperative. Atran and Henrich argue that the cultural evolution of religion has been driven largely by competition among groups. Groups that were able to put their by-product gods to some good use had an advantage over groups that failed to do so, and so their ideas (not their genes) spread. Groups with less effective religions didn't necessarily get wiped out; often they just adopted the more effective variations. So it's really the *religions* that evolved, not the people or their genes.<sup>25</sup>

Among the best things to do with a by-product God,

according to Atran and Henrich, is to create a moral community. The gods of hunter-gatherers are often capricious and malevolent. They sometimes punish bad behavior, but they bring suffering to the virtuous as well. As groups take up agriculture and grow larger, however, their gods become far more moralistic.<sup>26</sup> The gods of larger societies are usually quite concerned about actions that foment conflict and division within the group, such as murder, adultery, false witness, and the breaking of oaths.

If the gods evolve (culturally) to condemn selfish and divisive behaviors, they can then be used to promote cooperation and trust within the group. You don't need a social scientist to tell you that people behave less ethically when they think nobody can see them. That was Glaucon's point about the ring of Gyges, and a great many social scientists have proven him right. For example, people cheat more on a test when the lights are dimmed.<sup>27</sup> They cheat less when there is a cartoon-like image of an eye nearby,<sup>28</sup> or when the concept of God is activated in memory merely by asking people to unscramble sentences that include words related to God.<sup>29</sup> Creating gods who can see everything, and who hate cheaters and oath breakers, turns out to be a good way to reduce cheating and oath breaking.

Another helpful cultural innovation, according to Atran and Henrich, are gods who administer collective punishment. When people believe that the gods might bring drought or pestilence on the whole village for the adultery of two people, you can bet that the villagers will be much more vigilant for—and gossipy about—any hint of an extramarital liaison. Angry gods make shame more effective as a means of social control.

Atran and Henrich begin with the same claim about by-products as do the New Atheists. But because these anthropologists see groups as real entities that have long been



in competition, they are able to see the role that religion plays in helping some groups to win that competition. There is now a great deal of evidence that religions do in fact help groups to cohere, solve free rider problems, and win the competition for group-level survival.

The clearest evidence comes from the anthropologist Richard Sosis, who examined the history of two hundred communes founded in the United States in the nineteenth century.<sup>30</sup> Communes are natural experiments in cooperation without kinship. Communes can survive only to the extent that they can bind a group together, suppress self-interest, and solve the free rider problem. Communes are usually founded by a group of committed believers who reject the moral matrix of the broader society and want to organize themselves along different principles. For many nineteenth-century communes, the principles were religious; for others they were secular, mostly socialist. Which kind of commune survived longer? Sosis found that the difference was stark: just 6 percent of the secular communes were still functioning twenty years after their founding, compared to 39 percent of the religious communes.

What was the secret ingredient that gave the religious communes a longer shelf life? Sosis quantified everything he could find about life in each commune. He then used those numbers to see if any of them could explain why some stood the test of time while others crumbled. He found one master variable: the number of costly sacrifices that each commune demanded from its members. It was things like giving up alcohol and tobacco, fasting for days at a time, conforming to a communal dress code or hairstyle, or cutting ties with outsiders. For religious communes, the effect was perfectly linear: the more sacrifice a commune demanded, the longer it lasted. But Sosis was surprised to discover that demands for sacrifice

did not help secular communes. Most of them failed within eight years, and there was no correlation between sacrifice and longevity.<sup>31</sup>

Why doesn't sacrifice strengthen secular communes? Sosis argues that rituals, laws, and other constraints work best when they are sacralized. He quotes the anthropologist Roy Rappaport: "To invest social conventions with sanctity is to hide their arbitrariness in a cloak of seeming necessity."<sup>32</sup> But when secular organizations demand sacrifice, every member has a right to ask for a cost-benefit analysis, and many refuse to do things that don't make logical sense. In other words, *the very ritual practices that the New Atheists dismiss as costly, inefficient, and irrational turn out to be a solution to one of the hardest problems humans face: cooperation without kinship*. Irrational beliefs can sometimes help the group function more rationally, particularly when those beliefs rest upon the Sanctity foundation.<sup>33</sup> Sacredness binds people together, and then blinds them to the arbitrariness of the practice.

Sosis's findings support Atran and Henrich. Gods really do help groups cohere, succeed, and outcompete other groups. This is a form of group selection, but Atran and Henrich say it's purely *cultural* group selection. Religions that do a better job of binding people together and suppressing selfishness spread at the expense of other religions, but not necessarily by killing off the losers. Religions can spread far faster than genes, as in the case of Islam in the seventh and eighth centuries, or Mormonism in the nineteenth century. A successful religion can be adopted by neighboring people or by vanquished populations.

Atran and Henrich therefore doubt that there has been any *genetic* evolution for religiosity. Moralistic high gods are just too recent, they say, having emerged along with agriculture in the last 10,000 years.<sup>34</sup> Atran and Henrich believe that



gene-culture coevolution happened slowly during the Pleistocene (when the modules were forged that later produced gods as by-products). By the time humans left Africa, the genes were set and the rest is all culture. Atran and Henrich join the New Atheists in claiming that our minds were not shaped, tuned, or adapted for religion.

But now that we know how quickly genetic evolution can occur, I find it hard to imagine that the genes stood still for more than 50,000 years.<sup>35</sup> How could the genetic partner in the "swirling waltz"<sup>36</sup> of gene-culture coevolution not take a single step as the cultural partner began dancing to religious music? Fifty thousand years may not be enough time to evolve a complex new module (such as the hypersensitive agency detector or the hive switch) from scratch. But how could there be no optimizing, no fine-tuning of modules to make people more prone to adaptive forms of hiving, sacralizing, or godding, and less prone to self-destructive or group-destructive forms?

#### THE DURKHEIMIAN STORY: BY-PRODUCTS, THEN MAYPOLES

David Sloan Wilson, a biologist at Binghamton University, was the most vigorous protester at the trial, conviction, and banishment of group selection in the 1970s. He then spent thirty years trying to prove that group selection was innocent. He produced mathematical demonstrations that genetic group selection could indeed occur, under special conditions that might well have been the conditions of earlier human societies.<sup>37</sup> And then he did the difficult cross-disciplinary work of exploring the history of many religions, to see if they truly provided those special conditions.<sup>38</sup>

Wilson's great achievement was to merge the ideas of the two most important thinkers in the history of the social sciences: Darwin and Durkheim. Wilson showed how they complete each other. He begins with Darwin's hypothesis about the evolution of morality by group selection, and he notes Darwin's concern about the free rider problem. He then gives Durkheim's definition of religion as a "unified system of beliefs and practices" that unites members into "one single moral community." If Durkheim is right that religions create cohesive groups that can function like organisms, then it supports Darwin's hypothesis: tribal morality can emerge by group selection. And if Darwin is right that we are products of multilevel selection, including group selection, then it supports Durkheim's hypothesis: we are *Homo duplex*, designed (by natural selection) to move back and forth between the lower (individual) and higher (collective) levels of existence.

In his book *Darwin's Cathedral*, Wilson catalogues the ways that religions have helped groups cohere, divide labor, work together, and prosper.<sup>39</sup> He shows how John Calvin developed a strict and demanding form of Christianity that suppressed free riding and facilitated trust and commerce in sixteenth-century Geneva. He shows how medieval Judaism created "cultural fortresses that kept outsiders out and insiders in."<sup>40</sup> But his most revealing example (based on research by the anthropologist Stephen Lansing)<sup>41</sup> is the case of water temples among Balinese rice farmers in the centuries before Dutch colonization.

Rice farming is unlike any other kind of agriculture. Rice farmers must create large irrigated paddies that they can drain and fill at precise times during the planting cycle. It takes a cast of hundreds. In one region of Bali, rainwater flows down the side of a high volcano through rivulets and rivers in the soft volcanic rock. Over several centuries the Balinese carved



hundreds of terraced pools into the mountainside and irrigated them with an elaborate series of aqueducts and tunnels, some running underground for more than a kilometer. At the top of the whole system, near the crest of the volcano, they built an immense temple for the worship of the Goddess of the Waters. They staffed the temple with twenty-four full-time priests selected in childhood, and a high priest who was thought to be the earthly representative of the goddess herself.

The lowest level of social organization was the *subak*, a group of several extended families that made decisions democratically. Each *subak* had its own small temple, with its own deities, and each *subak* did the hard work of rice farming more or less collectively. But how did the *subaks* work together to build the system in the first place? And how did they maintain it and share its waters fairly and sustainably? These sorts of common dilemmas (where people must share a common resource without depleting it) are notoriously hard to solve.<sup>42</sup>

The ingenious religious solution to this problem of social engineering was to place a small temple at every fork in the irrigation system. The god in each such temple united all the *subaks* that were downstream from it into a community that worshipped that god, thereby helping the *subaks* to resolve their disputes more amicably. This arrangement minimized the cheating and deception that would otherwise flourish in a zero-sum division of water. The system made it possible for thousands of farmers, spread over hundreds of square kilometers, to cooperate without the need for central government, inspectors, and courts. The system worked so efficiently that the Dutch—who were expert hydrologists themselves—could find little to improve.

What are we to make of the hundreds of gods and temples woven into this system? Are they just by-products of

mental systems that were designed for other purposes? Are they examples of what Dawkins called the “time-consuming, wealth-consuming . . . counterproductive fantasies of religion?” No. I think the best way to understand these gods is as maypoles.

Suppose you observe a young woman with flowers in her hair, dancing in a clockwise circle while holding one end of a ribbon. The other end is attached to the top of a tall pole. She circles the pole repeatedly, but not in a neat circle. Rather, she bobs and weaves a few steps closer to or further from the pole as she circles. Viewed in isolation, her behavior seems pointless, reminiscent of mad Ophelia on her way to suicide. But now add in five other young women doing exactly what she is doing, and add in six young men doing the same thing in a counterclockwise direction, and you’ve got a maypole dance. As the men and women pass each other and swerve in and out, their ribbons weave a kind of tubular cloth around the pole. The dance symbolically enacts the central miracle of social life: *e pluribus unum*.

Maypole dancing seems to have originated somewhere in the mists of pre-Christian northern Europe, and it is still done regularly in Germany, the United Kingdom, and Scandinavia, often as part of May Day festivities. Whatever its origins, it’s a great metaphor for the role that gods play in Wilson’s account of religion. Gods (like maypoles) are tools that let people bind themselves together as a community by circling around them. Once bound together by circling, these communities can function more effectively. As Wilson puts it: “Religions exist primarily for people to achieve together what they cannot achieve on their own.”<sup>43</sup>

According to Wilson, this kind of circling and binding has been going on a lot longer than 10,000 years. You don’t need moralistic high gods thundering against adultery



to bring people together; even the morally capricious gods of hunter-gatherers can be used to create trust and cohesion. One group of !Kung, for example, believe in an omnipotent sky god named //Gauwa, and in spirits of the dead, called //gaurwasi (! and // indicate click sounds). These supernatural beings offer no moral guidance, no rewards for good behavior, and no pun-



FIGURE 11.3. *The maypole dance*. From *The Illustrated London News*, August 14, 1858, p. 150.

ishments for sin; they simply cause things to happen. One day your hunt goes well because the spirits helped you, and the next day a snake bites you because the spirits turned against you. These beings are perfect examples of the hypersensitive agency detector in action: people perceive agency where there is none.

Yet even these sometimes nasty spirits play a crucial role in the “healing dances” that are among the central religious rites of the !Kung. The anthropologist Lorna Marshall describes them like this:

People bind together subjectively against external forces of evil. . . . The dance draws everyone together. . . . Whatever their relationship, whatever the state of their feelings, whether they like or dislike each other, whether they are on good terms or bad terms with each other, they become a unit, singing, clapping, moving together in an extraordinary unison of stamping feet and clapping hands, swept along by the music. No words divide them; they act in concert for their spiritual and physical good and do something together that enlivens them and gives them pleasure.<sup>44</sup>

I think the !Kung would have a great time at a UVA football game.

If human groups have been doing this sort of thing since before the exodus from Africa, and if doing it in some ways rather than others improved the survival of the group, then it’s hard to believe that there was no gene-culture coevolution, no reciprocal fitting of mental modules to social practices, during the last 50,000 years. It’s particularly hard to believe that the genes for all those by-product modules sat still even as the genes for everything else about us began changing more



rapidly, reaching a crescendo of genetic change during the Holocene era,<sup>45</sup> which is precisely the time that gods were getting bigger and more moralistic. If religious behavior had consequences, for individuals and for groups, in a way that was stable over a few millennia, then there was almost certainly some degree of gene-culture coevolution for righteous minds that believed in gods and then used those gods to create moral communities.

In *The Faith Instinct* the science writer Nicholas Wade reviews what is known about prehistoric religious practices and strongly endorses Wilson's theory of religion. He notes that it's hard to tell an evolutionary story in which these ancient practices conferred an advantage on individuals as they competed with their less religious neighbors in the same group, but it's obvious that these practices helped groups to compete with other groups. He summarizes the logic of group selection lucidly:

People belonging to such a [religiously cohesive] society are more likely to survive and reproduce than those in less cohesive groups, who may be vanquished by their enemies or dissolve in discord. In the population as a whole, *genes that promote religious behavior are likely to become more common* in each generation as the less cohesive societies perish and the more united ones thrive.<sup>46</sup>

Gods and religions, in sum, are group-level adaptations for producing cohesiveness and trust. Like maypoles and beehives, they are created by the members of the group, and they then organize the activity of the group. Group-level adaptations, as Williams noted, imply a selection process operating at the group level.<sup>47</sup> And group selection can work very quickly

(as in the case of those group-selected hens that became more peaceful in just a few generations).<sup>48</sup> Ten thousand years is plenty of time for gene-culture coevolution, including some genetic changes, to have occurred.<sup>49</sup> And 50,000 years is more than plenty of time for genes, brains, groups, and religions to have coevolved into a very tight embrace.

This account—Wilson's account—has implications profoundly different from those of the pure by-product theories we considered earlier. In Wilson's account, human minds and human religions have been coevolving (just like bees and their physical hives) for tens or hundreds of thousands of years. And if this is true, then we cannot expect people to abandon religion so easily. Of course people can and do forsake *organized* religions, which are extremely recent cultural innovations. But even those who reject all religions cannot shake the basic religious psychology of figure 11.2: doing linked to believing linked to belonging. Asking people to give up all forms of sacralized belonging and live in a world of purely "rational" beliefs might be like asking people to give up the Earth and live in colonies orbiting the moon. It can be done, but it would take a great deal of careful engineering, and even after ten generations, the descendants of those colonists might find themselves with inchoate longings for gravity and greenery.

#### IS GOD A FORCE FOR GOOD OR EVIL?

Does religion make people good or bad? The New Atheists assert that religion is the root of most evil. They say it is a primary cause of war, genocide, terrorism, and the oppression of women.<sup>50</sup> Religious believers, for their part, often say that atheists are immoral, and that they can't be trusted. Even John Locke, one of the leading lights of the Enlightenment, wrote



that "promises, covenants, and oaths, which are the bonds of human society, can have no hold upon an atheist. The taking away of God, though but even in thought, dissolves all." So who is right?

For several decades, the contest appeared to be a draw. On surveys, religious people routinely claimed to give more money to charity, and they expressed more altruistic values. But when social psychologists brought people into the lab and gave them the chance to actually help strangers, religious believers rarely acted any better than did nonbelievers.<sup>51</sup>

But should we really expect religion to turn people into *unconditional* altruists, ready to help strangers under any circumstances? Whatever Christ said about the good Samaritan who helped an injured Jew, if religion is a group-level adaptation, then it should produce *parochial* altruism. It should make people exceedingly generous and helpful toward members of their own moral communities, particularly when their reputations will be enhanced. And indeed, religion does exactly this. Studies of charitable giving in the United States show that people in the least religious fifth of the population give just 1.5 percent of their money to charity. People in the most religious fifth (based on church attendance, not belief) give a whopping 7 percent of their income to charity, and the majority of that giving is to religious organizations.<sup>52</sup> It's the same story for volunteer work: religious people do far more than secular folk, and the bulk of that work is done for, or at least through, their religious organizations.

There is also some evidence that religious people behave better in lab experiments—especially when they get to work with each other. A team of German economists asked subjects to play a game in which one person is the "truster," who is given some money on each round of the game.<sup>53</sup> The truster is then asked to decide how much money, if any, to pass on

to an anonymous "trustee." Any money passed gets tripled by the experimenter, at which point the "trustee" can choose how much, if any, to return to the truster. Each person plays many rounds of the game, with different people each time, sometimes as the truster, sometimes as the trustee.

Behavioral economists use this game often, but the novel twist in this study was to reveal one piece of real, true personal information about the trustees to the trusters, before the trusters made their initial decision to trust. (The information was taken from questionnaires that all subjects had filled out weeks before.) In some cases, the truster learned the trustee's level of religiosity, on a scale of 1 to 5. When trusters learned that their trustee was religious, they transferred more money, which shows that these Germans held the same belief as did Locke (about religious believers being more trustworthy). More important, the religious trustees really did transfer back more money than did the nonreligious trustees, even though they never knew anything about their trusters. The highest levels of wealth, therefore, would be created when religious people get to play a trust game with other religious people. (Richard Sosis found this same outcome too, in a field experiment done at several Israeli kibbutzim.)<sup>54</sup>

Many scholars have talked about this interaction of God, trust, and trade. In the ancient world, temples often served an important commercial function: oaths were sworn and contracts signed before the deity, with explicit threats of supernatural punishment for abrogation.<sup>55</sup> In the medieval world, Jews and Muslims excelled in long-distance trade in part because their religions helped them create trustworthy relationships and enforceable contracts.<sup>56</sup> Even today, markets that require very high trust to function efficiently (such as a diamond market) are often dominated by religiously



bound ethnic groups (such as ultra-Orthodox Jews), who have lower transaction and monitoring costs than their secular competitors.<sup>57</sup>

So religions do what they are supposed to do. As Wilson put it, they help people "to achieve together what they cannot achieve on their own." But that job description applies equally well to the Mafia. Do religions help their practitioners by binding them together into superorganisms that can prey on—or at least turn their backs on—everyone else? Is religious altruism a boon or a curse to outsiders?

In their book *American Grace: How Religion Divides and Unites Us*, political scientists Robert Putnam and David Campbell analyzed a variety of data sources to describe how religious and nonreligious Americans differ. Common sense would tell you that the more time and money people give to their religious groups, the less they have left over for everything else. But common sense turns out to be wrong. Putnam and Campbell found that the more frequently people attend religious services, the more generous and charitable they become across the board.<sup>58</sup> Of course religious people give a lot to religious charities, but they also give as much as or more than secular folk to secular charities such as the American Cancer Society.<sup>59</sup> They spend a lot of time in service to their churches and synagogues, but they also spend more time than secular folk serving in neighborhood and civic associations of all sorts. Putnam and Campbell put their findings bluntly:

By many different measures religiously observant Americans are better neighbors and better citizens than secular Americans—they are more generous with their time and money, especially in helping the needy, and they are more active in community life.<sup>60</sup>

Why are religious people better neighbors and citizens? To find out, Putnam and Campbell included on one of their surveys a long list of questions about religious beliefs (e.g., "Do you believe in hell? Do you agree that we will all be called before God to answer for our sins?") as well as questions about religious practices (e.g., "How often do you read holy scriptures? How often do you pray?"). These beliefs and practices turned out to matter very little. Whether you believe in hell, whether you pray daily, whether you are a Catholic, Protestant, Jew, or Mormon . . . none of these things correlated with generosity. The only thing that was reliably and powerfully associated with the moral benefits of religion was *how enmeshed people were in relationships with their co-religionists*. It's the friendships and group activities, carried out within a moral matrix that emphasizes selflessness. That's what brings out the best in people.

Putnam and Campbell reject the New Atheist emphasis on belief and reach a conclusion straight out of Durkheim: "It is religious belongingness that matters for neighborliness, not religious believing."<sup>61</sup>

#### CHIMPS AND BEES AND GODS

Putnam and Campbell's work shows that religion in the United States nowadays generates such vast surpluses of social capital that much of it spills over and benefits outsiders. But there is no reason to think that religion in most times and places has provided so much benefit beyond its borders. Religions, I'm claiming, are sets of cultural practices that coevolved with our religious minds by a process of multilevel selection. To the extent that some group-level selection occurred, we can expect religions and religious minds to be parochial—focused on helping the in-group—even when a religion preaches univer-



sal love and benevolence. Religiosity evolved because successful religions made groups more efficient at "turning resources into offspring," as Lesley Newson put it (in chapter 9).

Religion is therefore well suited to be the handmaiden of groupishness, tribalism, and nationalism. To take one example, religion does not seem to be the *cause* of suicide bombing. According to Robert Pape, who has created a database of every suicide terrorist attack in the last hundred years, suicide bombing is a nationalist response to military occupation by a culturally alien democratic power.<sup>62</sup> It's a response to boots and tanks on the ground—never to bombs dropped from the air. It's a response to contamination of the sacred homeland. (Imagine a fist punched into a beehive, and left in for a long time.)

Most military occupations don't lead to suicide bombings. There has to be an ideology in place that can rally young men to martyr themselves for a greater cause. The ideology can be secular (as was the case with the Marxist-Leninist Tamil Tigers of Sri Lanka) or it can be religious (as was the case with the Shiite Muslims who first demonstrated that suicide bombing works, driving the United States out of Lebanon in 1983). Anything that binds people together into a moral matrix that glorifies the in-group *while at the same time demonizing another group* can lead to moralistic killing, and many religions are well suited for that task. Religion is therefore often an *accessory* to atrocity, rather than the driving force of the atrocity.

But if you look at the long history of humanity and see our righteous minds as nearly miraculous freaks of evolution that cry out for explanation, then you might feel some appreciation for the role that religion played in getting us here. We are *Homo duplex*; we are 90 percent chimp and 10 percent bee. Successful religions work on both levels of our nature to suppress selfishness, or at least to channel it in ways that

often pay dividends for the group. Gods were helpful in creating moral matrices within which Glauconian creatures have strong incentives to conform. And gods were an essential part of the evolution of our hivish overlay; sometimes we really do transcend self-interest and devote ourselves to helping others, or our groups.

Religions are moral exoskeletons. If you live in a religious community, you are enmeshed in a set of norms, relationships, and institutions that work primarily on the elephant to influence your behavior. But if you are an atheist living in a looser community with a less binding moral matrix, you might have to rely somewhat more on an internal moral compass, read by the rider. That might sound appealing to rationalists, but it is also a recipe for anomie—Durkheim's word for what happens to a society that no longer has a shared moral order.<sup>63</sup> (It means, literally, "normlessness.") We evolved to live, trade, and trust within shared moral matrices. When societies lose their grip on individuals, allowing all to do as they please, the result is often a decrease in happiness and an increase in suicide, as Durkheim showed more than a hundred years ago.<sup>64</sup>

Societies that forgo the exoskeleton of religion should reflect carefully on what will happen to them over several generations. We don't really know, because the first atheistic societies have only emerged in Europe in the last few decades. They are the least efficient societies ever known at turning resources (of which they have a lot) into offspring (of which they have few).

#### THE DEFINITION OF MORALITY (AT LAST)

You're nearly done reading a book on morality, and I have not yet given you a definition of morality. There's a reason for that.



The definition I'm about to give you would have made little sense back in chapter 1. It would not have meshed with your intuitions about morality, so I thought it best to wait. Now, after eleven chapters in which I've challenged rationalism (in Part I), broadened the moral domain (in Part II), and said that groupishness was a key innovation that took us beyond selfishness and into civilization (Part III), I think we're ready.

Not surprisingly, my approach starts with Durkheim, who said: "What is moral is everything that is a source of solidarity, everything that forces man to . . . regulate his actions by something other than . . . his own egoism."<sup>65</sup> As a sociologist, Durkheim focused on social facts—things that exist outside of any individual mind—which constrain the egoism of individuals. Examples of such social facts include religions, families, laws, and the shared networks of meaning that I have called moral matrices. Because I'm a psychologist, I'm going to insist that we include inside-the-mind stuff too, such as the moral emotions, the inner lawyer (or press secretary), the six moral foundations, the hive switch, and all the other evolved psychological mechanisms I've described in this book.

My definition puts these two sets of puzzle pieces together to define moral *systems*:

Moral systems are interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate self-interest and make cooperative societies possible.<sup>66</sup>

I'll just make two points about this definition now, and then we'll use it in the final chapter to examine some of the major political ideologies in Western society.

First, this is a functionalist definition. I define morality by

what it *does*, rather than by specifying what content counts as moral. Turiel, in contrast, defined morality as being about "justice, rights, and welfare."<sup>67</sup> But any effort to define morality by designating a few issues as the truly moral ones and dismissing the rest as "social convention" is bound to be parochial. It's a moral community saying, "Here are our central values, and we define morality as being about our central values; to hell with the rest of you." As I showed in chapters 1 and 7, Turiel's definition doesn't even apply to all Americans; it's a definition by and for educated and politically liberal Westerners.

Of course, it is possible that one moral community actually *has* gotten it right in some sense, and the rest of the world is wrong, which brings us to the second point. Philosophers typically distinguish between *descriptive* definitions of morality (which simply describe what people happen to think is moral) and *normative* definitions (which specify what is really and truly right, regardless of what anyone thinks). So far in this book I have been entirely descriptive. I told you that some people (especially secular liberals such as Turiel, Kohlberg, and the New Atheists) think that morality refers to matters of harm and fairness. Other people (especially religious conservatives and people in non-WEIRD cultures) think that the moral domain is much broader, and they use most or all of the six moral foundations to construct their moral matrices. These are empirical, factual, verifiable propositions, and I offered evidence for them in chapters 1, 7, and 8.

But philosophers are rarely interested in what people happen to think. The field of normative ethics is concerned with figuring out which actions are *truly* right or wrong. The best-known systems of normative ethics are the one-receptor systems I described in chapter 6: utilitarianism (which tells us to maximize overall welfare) and deontology (which in its Kantian form tells us to make the rights and autonomy of



others paramount). When you have a single clear principle, you can begin making judgments across cultures. Some cultures get a higher score than others, which means that they are morally superior.

My definition of morality was designed to be a descriptive definition; it cannot stand alone as a normative definition. (As a normative definition, it would give high marks to fascist and communist societies as well as to cults, so long as they achieved high levels of cooperation by creating a shared moral order.) But I think my definition works well as an adjunct to other normative theories, particularly those that have often had difficulty seeing groups and social facts. Utilitarians since Jeremy Bentham have focused intently on individuals. They try to improve the welfare of society by giving individuals what they want. But a Durkheimian version of utilitarianism would recognize that human flourishing requires social order and embeddedness. It would begin with the premise that social order is extraordinarily precious and difficult to achieve. A Durkheimian utilitarianism would be open to the possibility that the binding foundations—Loyalty, Authority, and Sanctity—have a crucial role to play in a good society.

I don't know what the best normative ethical theory is for individuals in their private lives.<sup>68</sup> But when we talk about making laws and implementing public policies in Western democracies that contain some degree of ethnic and moral diversity, then I think there is no compelling alternative to utilitarianism.<sup>69</sup> I think Jeremy Bentham was right that laws and public policies should aim, as a first approximation, to produce the greatest total good.<sup>70</sup> I just want Bentham to read Durkheim and recognize that we are *Homo duplex* before he tells any of us, or our legislators, how to go about maximizing that total good.<sup>71</sup>

## IN SUM

If you think about religion as a set of beliefs about supernatural agents, you're bound to misunderstand it. You'll see those beliefs as foolish delusions, perhaps even as parasites that exploit our brains for their own benefit. But if you take a Durkheimian approach to religion (focusing on belonging) and a Darwinian approach to morality (involving multilevel selection), you get a very different picture. You see that religious practices have been binding our ancestors into groups for tens of thousands of years. That binding usually involves some blinding—once any person, book, or principle is declared sacred, then devotees can no longer question it or think clearly about it.

Our ability to believe in supernatural agents may well have begun as an accidental by-product of a hypersensitive agency detection device, but once early humans began believing in such agents, the groups that used them to construct moral communities were the ones that lasted and prospered. Like those nineteenth-century religious communes, they used their gods to elicit sacrifice and commitment from members. Like those subjects in the cheating studies and trust games, their gods helped them to suppress cheating and increase trustworthiness. Only groups that can elicit commitment and suppress free riding can grow.

This is why human civilization grew so rapidly after the first plants and animals were domesticated. Religions and righteous minds had been coevolving, culturally and genetically, for tens of thousands of years before the Holocene era, and both kinds of evolution sped up when agriculture presented new challenges and opportunities. Only groups whose gods promoted cooperation, and whose individual minds responded to those gods, were ready to rise to these challenges and reap the rewards.



We humans have an extraordinary ability to care about things beyond ourselves, to circle around those things with other people, and in the process to bind ourselves into teams that can pursue larger projects. That's what religion is all about. And with a few adjustments, it's what politics is about too. In the final chapter we'll take one last look at political psychology. We'll try to figure out why people choose to bind themselves into one political team or another. And we'll look especially at how team membership blinds people to the motives and morals of their opponents—and to the wisdom that is to be found scattered among diverse political ideologies.

## TWELVE

## Can't We All Disagree More Constructively?

"Politics ain't beanbag," said a Chicago humorist in 1895;<sup>1</sup> it's not a game for children. Ever since then the saying has been used to justify the rough-and-tumble nastiness of American politics. Rationalists might dream of a utopian state where policy is made by panels of unbiased experts, but in the real world there seems to be no alternative to a political process in which parties compete to win votes and money. That competition always involves trickery and demagoguery, as politicians play fast and loose with the truth, using their inner press secretaries to portray themselves in the best possible light and their opponents as fools who would lead the country to ruin.

And yet, does it have to be *this* nasty? A lot of Americans have noticed things getting worse. The country now seems polarized and embattled to the point of dysfunction. They are right. Up until a few years ago, there were some political scientists who claimed that the so-called culture war was limited to Washington, and that Americans had not in fact become more polarized in their attitudes toward most policy issues.<sup>2</sup> But in the last twelve years Americans have begun to move