
MORALITY:
THE BAD NEWS

IF YOU ARE LIKE MOST PEOPLE CONTEMPLATING scientism, it's the persistent questions about morality and mortality that grip you, not trivial topics like the nature of reality, the purpose of the universe, or the inevitability of natural selection.

After all, the trouble most people have with atheism is that if they really thought there were no God, human life would no longer have any value, they wouldn't have much reason to go on living, and even less reason to be decent people. The most persistent questions atheists get asked by theists are these two: In a world you think is devoid of purpose, why do you bother getting up in the morning? And in such a world, what stops you from cutting all the moral corners you can? This chapter and the next deal with the second question. The first one, about the meaning of our lives, we'll take up in Chapter 9.

Scientism seems to make the unavoidable questions about morality even more urgent. In a world where physics fixes all the facts, it's hard to see how there could be room for moral facts. In a universe headed for its own heat death, there is no cosmic value to human life, your own or anyone else's. Why bother to be good?

We need to answer these questions. But we should also worry about the public relations nightmare for scientism produced by the answer theists try to foist on scientism. The militant exponents of the higher superstitions say that scientism has no room for morality and can't even condemn the wrongdoing of a monster like Hitler. Religious people especially argue that we cannot really have any values—things we stand up for just because they are right—and that we are not to be trusted to be good when we can get away with something. They complain that our worldview has no moral compass. These charges get redoubled once theists see how big a role Darwinian natural selection plays in scientism's view of reality. Many of the most vocal people who have taken sides against this scientific theory (for instance, the founders of the Discovery Institute, which advocates “intelligent design”) have frankly done so because they think it's morally dangerous, not because it lacks evidence. If Darwinism is true, then anything goes!

You might think that we have to resist these conclusions or else we'll never get people to agree with us. Most people really do accept morality as a constraint on their conduct. The few who might agree privately with Darwinism about morality won't do so publicly because of the deep unpopularity of these views. “Anything goes” is nihilism, and nihilism has a bad name.

There is good news and bad news. The bad news first: We need to face the fact that nihilism is true. But there is good news here, too, and it's probably good enough to swamp most of the bad news about nihilism. The good news is that almost all of us, no matter what our scientific, scientific, or theological beliefs, are committed to the same basic morality and values. The difference between the vast number of good people and the small number of bad ones isn't a matter of whether they believe in God or not. It's a difference no minister, imam, vicar, priest, or rabbi can do much about. Certainly,

telling people lies about what will happen to them after they die has never done much to solve the problem of morally bad people. In addition to not working, it turns out not to be necessary either. By the same token, adopting nihilism as it applies to morality is not going to have any impact on anyone's conduct. Including ours.

There is really one bit of bad news that remains to trouble scientism. We have to acknowledge (to ourselves, at least) that many questions we want the "right" answers to just don't have any. These are questions about the morality of stem-cell research or abortion or affirmative action or gay marriage or our obligations to future generations. Many enlightened people, including many scientists, think that reasonable people can eventually find the right answers to such questions. Alas, it will turn out that all anyone can really find are the answers that they like. The same goes for those who disagree with them. Real moral disputes can be ended in lots of ways: by voting, by decree, by fatigue of the disputants, by the force of example that changes social mores. But they can never really be resolved by finding the correct answers. There are none.

WHO ARE YOU CALLING A NIHILIST, ANYWAY?

Nihilism was a word that was thrown around a lot in the nineteenth century. It often labeled bomb-throwing anarchists—think of Joseph Conrad's *Secret Agent* and people like Friedrich Nietzsche who rejected conventional morality. Today, nobody uses the word much. We can use it for a label, though we need to sharpen it up a bit, given the misuses to which it has also been put.

What exactly is nihilism? It's a good idea to start with what it isn't. Nihilism is not moral relativism. It doesn't hold that there are lots of equally good or equally right moral codes, each one appropriate to its particular ethnic group, culture, time period, or ecological niche. Nihilism doesn't agree with the relativist that capital punishment is okay at some times and places and not okay at other ones. It's also not moral skepticism, forever unsure about which among competing moral claims is right. Moral skepticism holds that capital punishment is definitely right or definitely wrong, but alas we can't ever know which.

Nor does nihilism claim that everything is permitted, that nothing is forbidden. Still less does it hold that destructive behavior is obligatory, that figurative or literal bomb throwing is good or makes the world better in any way at all. These are all charges made against nihilism, or at least they are often attributed to people the establishment wants to call nihilists. But they don't stick to nihilism, or at least not to our brand.

These charges fail because nihilism is deeper and more fundamental than any moral code. Nihilism is not in competition with other codes of moral conduct about what is morally permitted, forbidden, and obligatory. Nor does it disagree with other conceptions of value or goodness—what is good or the best, what end we ought to seek as a matter of morality.

Nihilism rejects the distinction between acts that are morally permitted, morally forbidden, and morally required. Nihilism tells us not that we can't know which moral judgments are right, but that they are all wrong. More exactly, it claims, they are all based on false, groundless presuppositions. Nihilism says that the whole idea of "morally permissible" is untenable nonsense. As such, it can hardly be accused of holding that "everything is morally permissible." That, too, is untenable nonsense.

Moreover, nihilism denies that there is really any such thing as intrinsic moral value. People think that there are things that are intrinsically valuable, not just as a means to something else: human life or the ecology of the planet or the master race or elevated states of consciousness, for example. But

nothing can have that sort of intrinsic value—the very kind of value morality requires. Nihilism denies that there is anything at all that is good in itself or, for that matter, bad in itself. Therefore, nihilism can't be accused of advocating the moral goodness of, say, political violence or anything else.

Even correctly understood, there seem to be serious reasons to abstain from nihilism if we can. Here are three:

First, nihilism can't condemn Hitler, Stalin, Mao, Pol Pot, or those who fomented the Armenian genocide or the Rwandan one. If there is no such thing as "morally forbidden," then what Mohamed Atta did on September 11, 2001, was not morally forbidden. Of course, it was not permitted either. But still, don't we want to have grounds to condemn these monsters? Nihilism seems to cut that ground out from under us.

Second, if we admit to being nihilists, then people won't trust us. We won't be left alone when there is loose change around. We won't be relied on to be sure small children stay out of trouble.

Third, and worst of all, if nihilism gets any traction, society will be destroyed. We will find ourselves back in Thomas Hobbes's famous state of nature, where "the life of man is solitary, mean, nasty, brutish and short." Surely, we don't want to be nihilists if we can possibly avoid it. (Or at least, we don't want the other people around us to be nihilists.)

Scientism can't avoid nihilism. We need to make the best of it. For our own self-respect, we need to show that nihilism doesn't have the three problems just mentioned—no grounds to condemn Hitler, lots of reasons for other people to distrust us, and even reasons why no one should trust anyone else. We need to be convinced that these unacceptable outcomes are not ones that atheism and scientism are committed to. Such outcomes would be more than merely a public relations nightmare for scientism. They might prevent us from swallowing nihilism ourselves, and that would start unraveling scientism.

To avoid these outcomes, people have been searching for scientifically respectable justification of morality for least a century and a half. The trouble is that over the same 150 years or so, the reasons for nihilism have continued to mount. Both the failure to find an ethics that everyone can agree on and the scientific explanation of the origin and persistence of moral norms have made nihilism more and more plausible while remaining just as unappetizing.

PLATO'S PROBLEM FOR SERMONIZING ABOUT MORALITY

The problem of justifying morality—any morality—is a serious one for everybody—theist, atheist, agnostic. The difficulty of grounding ethics is one Plato wrote about in his very first Socratic dialogue—the *Euthyphro*. Ever since, it's been a thorn in the side of Sunday sermon writers.

In the *Euthyphro*, Plato invites us to identify our favorite moral norm—say, "Thou shalt not commit abortion" or "Homosexual acts between consenting adults are permissible." Assume that this norm—either one—is approved, sanctioned, even chosen by God.

Now, Plato says, if this norm is both the morally correct one and also the one chosen for us by God, ask yourself the following question: Is it correct because it is chosen by God, or is it chosen by God because it is correct? It has to be one or the other if religion and morality have anything to do with each other. It just can't be a coincidence that the norm is both the right one and chosen for us by God. Theism rules out coincidences like this.

Consider the first alternative: what makes the norm correct is that God chose it. If he had chosen the opposite one (a pro-choice or anti-gay norm), then the opposite one would be the morally right one.

Now consider the second alternative: God chose the pro-life or pro-gay norm, or whatever your

favorite moral norm is, because it is the right one, and he was smart enough to discern that fact about it.

Pretty much everybody, including the dyed-in-the-wool theists among us, prefers the second alternative. No one wants to admit that our most cherished moral norms are the right, correct, true morality solely because they were dictated to us by God, even a benevolent, omniscient God. After all, he is omniscient, so he knows which norm is right; and he is benevolent, so he will choose the norm he knows to be morally best for us. If it's just a matter of whatever he says goes, then he could have made the opposite norm the right one just by choosing it. That can't be right.

It must be that the norms God imposes on us were ones he chose because they are the right ones. Whatever it is that makes them right, it's some *fact* about the norms, not some fact about God. But what is that fact about the right moral norms that makes them right? All we can tell so far is that it was some fact about them that God in his omniscient wisdom was able to see.

Atheists and agnostics, too, will make common cause with the theists in seeking this right-making property of any moral norm that we all share in common (and there are many such norms). Plato's argument should convince us all that finding this right-making property of the moral norms we accept is an urgent task.

There is one way for the theist to avoid this task, but it's not one people will have much intellectual respect for. The theist can always say that identifying the right-making property of the morally right norms is a task beyond our powers. They could claim that it is beyond the powers of any being less omniscient than God. So, we had better just take his word for what's morally right. We ought neither question it nor try to figure out what the right-making fact about the right morality is, the one that God can see but we can't. This is a blatant dodge that all but the least inquisitive theists will reject. After all, morality isn't rocket science. Why are its grounds beyond the ken of mortal humans?

What does Plato's problem for sermonizing about morality have to do with scientism, or nihilism for that matter? Two things. First, Plato's argument shows that our moral norms need to be justified and that religion is not up to the job. Second, it turns out that scientism faces a coincidence problem just like the one troubling the theists. No theist can accept that it's just a coincidence that a moral norm is the right one and that God just happened to choose it for us. One of these two things must explain the other. Similarly, scientism is going to be faced with its own intolerable coincidence. But unlike theism, it's going to have a solution: nihilism.

Nihilism maintains that there isn't anything that makes our moral norms the right ones or anyone else's norms the right ones either. It avoids the challenge Plato set for anyone who wants to reveal morality's rightness. Nihilism instead recognizes that Plato's challenge can't be met. But the nihilist doesn't need to deny that almost all people share the same core moral norms, theists and nihilists included. Ironically, almost everyone's sharing a core morality is just what nihilism needs to show that no morality can be justified. What's more, the reasons that make nihilism scientifically and scientistically unavoidable also reveal that it doesn't have the disturbing features scientific people worry about. Public relations problem solved.

TWO EASY STEPS TO NIHILISM

We can establish the truth of nihilism by substantiating a couple of premises:

- First premise: All cultures, and almost everyone in them, endorse most of the same core moral principles as binding on everyone.

- Second premise: The core moral principles have significant consequences for humans' biological fitness—for our survival and reproduction.

Justifying the first premise is easier than it looks. It looks hard because few moral norms seem universal; most disagree somewhere or other. Some moral values seem incommensurable with each other—we don't even know how to compare them, let alone reconcile them. Moral norms are accepted in some localities but not in others: some cultures permit plural marriage, while others prohibit it; some require revenge taking and honor killing, while others forbid these acts. Adultery, divorce, abortion, and homosexual relations go in and out of moral fashion. At first glance, it looks like there is a lot of moral disagreement. It's enough to make some anthropologists into moral relativists (moral codes bind only within their cultures). It makes some philosophers into moral skeptics (there may be an absolute moral truth, but we can't be certain or don't know what it is).

On the other hand, in human culture there has long been a sustained effort to identify a core morality—one shared by the major religions, one that cuts across political differences and diverse legal codes. It is a core morality that has held constant or been refined over historical epochs. Soon after the founding of the United Nations in the late 1940s, there was enough consensus on core morality that it was enshrined in the Universal Declaration of Human Rights. Roughly the same core morality has been written into many more international conventions on rights and liberties that have been adopted by varying coalitions of nations ever since. Even countries that decline to be parties to these treaties have at least paid lip service to most of the norms they enshrine. These agreements don't prove that there is a core morality, but they're good evidence that most people think there is.

Thus, there is long-standing evidence for the existence of core morality in the overlap of ethical agreement by the major religions and in the lip service paid by international agreements. But wait, there's more. Neuroscience, in particular the techniques of fMRI (functioning magnetic resonance imaging of brain activity), increasingly shows that people's brains react the same way to ethical problems across cultures. This is just what the existence of core morality leads us to expect. If you are really worried about whether there is a core morality, you can jump to the next chapter, in which its existence is established beyond scientific (if not scientific) doubt, and then come back.

At the base of the diverse moral codes out there in the world, there are fundamental principles endorsed in all cultures at all times. The difficulty lies in actually identifying the norms that compose this core morality. What is the difficulty? These almost universally agreed-on norms are so obvious that they are easy to miss when we set about trying to identify them. Instead we think of interesting norms such as "Thou shalt not kill" and immediately realize that each of us buys into a slightly different and highly qualified version of the norm. For some of us, "Thou shalt not kill" excludes and excuses self-defense, military activity, perhaps capital punishment, euthanasia, other cases of mercy killing, and killing other great apes, primates, mammals, and so forth. When we consider how pacifists, opponents of capital punishment, proponents of euthanasia, and so many others disagree on some or all of these qualifications, it's tempting to conclude that there is no core morality we all share, or else it's too thin to have any impact on conduct.

A more accurate way to think about core morality begins by recognizing those norms that no one has ever bothered to formulate because they never come into dispute. They might even be difficult to formulate if they cover every contingency and exclude all exceptions. If we set out to express them, we might start out with candidates like these:

Don't cause gratuitous pain to a newborn baby, especially your own.
Protect your children.

If someone does something nice to you, then, other things being equal, you should return the favor if you can.

Other things being equal, people should be treated the same way.

On the whole, people's being better off is morally preferable to their being worse off.

Beyond a certain point, self-interest becomes selfishness.

If you earn something, you have a right to it.

It's permissible to restrict complete strangers' access to your personal possessions.

It's okay to punish people who intentionally do wrong.

It's wrong to punish the innocent.

Some of these norms are so obvious that we are inclined to say that they are indisputably true because of the meaning of the words in them: having a right to something is part of what we mean by the words "earn it." Other norms are vague and hard to apply: when exactly are "other things equal"? And some norms could easily conflict with each other when applied: would you really treat your children and other people the same? This shows how difficult it is to actually tease out the norms we live by, to list all their explicit exceptions, establish their priorities over other norms, and show how they are to be reconciled when they come into conflict. Almost certainly, the actual norms we live by but can't state will be somewhat vague, will have a list of exceptions we can't complete, and will conflict with other equally important norms. But most of the time, none of these problems arise to bedevil the application of the norms of core morality.

The next step in understanding moral disagreement involves recognizing that such disagreements almost always result from the combination of core morality with different factual beliefs. When you combine the uncontroversial norms of the moral core with some of the wild and crazy beliefs people have about nature, human nature, and especially the supernatural, you get the ethical disagreements that are so familiar to cultural anthropology. For example, Europeans may deem female genital cutting and/or infibulation to be mutilation and a violation of the core moral principle that forbids torturing infants for no reason at all. West and East African Muslims and Animists will reject the condemnation, even while embracing the same core morality. They hold that doing these things is essential to young girls' welfare. In their local environments, some genital cutting makes them attractive to potential future husbands; some sewing up protects them from rape. The disagreement here turns on a disagreement about factual beliefs, not core morality.

Even Nazis thought themselves to share core morality with others, including the millions they annihilated, as the historian Claudia Koonz documents in *The Nazi Conscience*. Outside of the psychopaths among them, Nazis were right to think that to a large extent they shared our core morality. It was their wildly false *factual* beliefs about Jews, Roma, gays, and Communist Commissars, combined with a moral core they shared with others, that led to the moral catastrophe of the Third Reich. You may be tempted to reply that it couldn't be that the Nazis just got their facts wrong, since there was no way to convince them they were mistaken. You can't reason with such people; you just have to confine them. True enough. But that shows how difficult it is to pry apart factual beliefs from moral norms, values, and the emotions that get harnessed to them. It's what makes for the appearance of incommensurability of values we so often come up against.

In any case, the argument that we're developing here doesn't require that every part of the core morality of every culture, no matter how different the cultures, be exactly the same. What we really need to acknowledge is that there is a substantial overlap between the moral cores of all human cultures. The principles in the overlapping core are among the most important ones for regulating

human conduct. They are the ones we'd "go to the mat for," the ones that are justified if any moral norms are justified. But as noted, they are also the ones that occasion the least argument, even across different cultures, and so hardly ever get explicitly articulated.

Along with everyone else, the most scientific among us accept these core principles as binding. Such norms reveal their force on us by making our widely agreed-on moral judgments somehow *feel* correct, right, true, and enforceable on everyone else. And when we are completely honest with ourselves and others, we really do *sincerely endorse* some moral rules we can't fully state as being right, correct, true, or binding on everyone. Scientism is not going to require that we give up that feeling or withdraw the sincerity of the endorsement. In a fight with these emotionally driven commitments, they'll win every time, for reasons that will become clear in Chapter 6. But scientism does recognize that emotionally driven commitment is no sign of the correctness, rightness, or truth of what we are emotionally committed to. As we'll see, add that recognition to science's explanation of where the shared norms come from, and you get nihilism.

The second premise we need to acknowledge is that core morality, the fundamental moral norms we agree on, has serious consequences for survival and reproduction. This will be especially true when those norms get harnessed together with local beliefs under local conditions. The connection between morality and sex is so strong, in fact, that each may be the first word you think of when you hear the other. The connection makes for a lot of good jokes. (Did you hear the one about Moses descending from Sinai with the two tablets bearing the ten commandments? "I have good news and I have bad news," he says. The children of Israel ask, "What's the good news?" Moses replies, "I argued him down from 38." They ask, "And the bad news?" Moses replies, "Adultery is still one of them.")

The idea that the moral core has huge consequences for survival and reproduction should not be controversial. Any long-standing norm (and the behavior it mandates) must have been heavily influenced by natural selection. This will be true whether the behavior or its guiding norm is genetically inherited, like caring for your offspring, or culturally inherited, like marriage rules. That means that the moral codes people endorse today almost certainly must have been selected for in a long course of blind variation and environmental filtration. Because they had an impact on survival and reproduction, our core moral norms must have been passed through a selective process that filtered out many competing variations over the course of a history that goes back beyond *Homo erectus* to our mammalian ancestors.

Natural selection can't have been neutral on the core moralities of evolving human lineages. Whether biological or cultural, natural selection was relentlessly moving through the design space of alternative ways of treating other people, animals, and the human environment. What was that process selecting for? As with selection for everything else, the environment was filtering out variations in core morality that did not enhance hominin reproductive success well enough to survive as parts of core morality. (You'll find much more on how Darwinian processes operate in cultural evolution in Chapter 11.)

There is good reason to think that there is a moral core that is almost universal to almost all humans. Among competing core moralities, it was the one that somehow came closest to maximizing the average fitness of our ancestors over a long enough period that it became almost universal. For all we know, the environment to which our core morality constitutes an adaptation is still with us. Let's hope so, at any rate, since core morality is almost surely locked in by now.

If you are in any doubt about this point, you are in good company. Or rather, you were until the last 50 years of research in behavioral biology, cognitive social psychology, evolutionary game theory, and paleoanthropology. Until the recent past, no one thought that core morality was selected for. Now

science knows better. If you are in doubt about this matter, the next chapter shows how natural selection made core morality inevitable. It's the key to taking the sting out of the unavoidable nihilism that this chapter is about to establish.

**IF CORE MORALITY IS AN ADAPTATION,
IT MUST BE GOOD FOR US.
SO WHY NIHILISM?**

Grant the two premises—moral norms make a difference to fitness and there is a universal core morality. Then the road to nihilism becomes a one-way street for science and for scientism.

The core morality almost everyone shares is the correct one, right? This core morality was selected for, right? Question: Is the correctness of core morality and its fitness a coincidence? Impossible. A million years or more of natural selection ends up giving us all roughly the same core morality, and it's just an accident that it gave us the right one, too? Can't be. That's too much of a coincidence.

Remember Plato's problem. God gave us core morality, and he gave us the right core morality. Coincidence? No. There are only two options for the theist. Either what makes core morality right is just the fact that God gave it to us, or God gave it to us because it is the right one.

Of course, there is no God, but science faces a very similar problem. Natural selection gave us morality, and it gave us the *right* morality, it seems. So, how did that happen? The question can't be avoided. We can't take seriously the idea that core morality is both correct and fitness maximizing and then claim that these two facts have nothing to do with each other. That's about as plausible as the idea that sex is fun and sex results in reproduction, but these two facts have nothing to do with each other.

Is natural selection so smart that it was able to filter out all the wrong, incorrect, false core moralities and end up with the only one that just happens to be true? Or is it the other way around: Natural selection filtered out all but one core morality, and winning the race is what made the last surviving core morality the right, correct, true one.

Which is it?

It can't be either one. The only way out of the puzzle is nihilism. Our core morality isn't true, right, correct, and neither is any other. Nature just seduced us into thinking it's right. It did that because that made core morality work better; our believing in its truth increases our individual genetic fitness.

Consider the second alternative first. Natural selection filtered out all the other variant core moralities, leaving just one core morality, ours. It won the race, and that's what made the last surviving core morality, our core morality, the right, correct, true one. This makes the rightness, correctness, truth of our core morality a result of its evolutionary fitness. But how could this possibly be the answer to the question of what makes our core morality right? There doesn't seem to be anything in itself morally right about having lots of kids, or grandchildren, or great grandchildren, or even doing things that make having kids more likely. But this is all the evolutionary fitness of anything comes to.

The first alternative is the explanation for the correlation that we'd *like* to accept: core morality is the right, binding, correct, true one and that is why humans have been selected for detecting that it is the right core morality. But natural selection couldn't have been discerning enough to pick out the core morality that was independently the right, true, or correct one. There are several reasons it had little chance of doing so.

First, there is lots of evidence that natural selection is not very good at picking out true beliefs,

especially scientific ones. Natural selection shaped our brain to seek stories with plots. The result was, as we have been arguing since Chapter 1, the greatest impediment to finding the truth about reality. The difficulty that even atheists have understanding and accepting the right answers to the persistent questions shows how pervasively natural selection has obstructed true beliefs about reality.

Mother Nature's methods of foisting false beliefs on us were so subtle they have only recently begun to be detected. By the sixteenth century, some people were beginning to think about reality the right way. But natural selection had long before structured the brain to make science difficult. As we'll see in later chapters, the brain was selected for taking all sorts of shortcuts in reasoning. That was adaptive in a hostile world, but it makes valid logical reasoning, and especially statistical inference, difficult. Without the ability to reason from evidence, getting things right is a matter of good luck at best.

Second, there is strong evidence that natural selection produces lots of false but useful beliefs. Just think about religion, any religion. Every one of them is chock full of false beliefs. We won't shake any of them. There are so many, they are so long-lasting, that false religious beliefs must have conferred lots of adaptive advantages on believers. For example, it's widely thought that religious beliefs are among the devices that enforce niceness within social groups. The hypothesis that organized religion has adaptive functions for people and groups is backed up by a fair amount of evolutionary human biology. It couldn't have done so except through the false beliefs it inculcates. Of course, all the religious beliefs that natural selection foisted on people made acquiring scientific truths about the world much more difficult.

There is a third reason to doubt that natural selection arranged for us to acquire the true morality. It is really good at producing and enforcing norms that you and I think are immoral. It often selects for norms that we believe to be morally wrong, incorrect, and false. In fact, a good part of the arguments against many of these "immoral" beliefs rests on the fact that natural selection can explain why people still mistakenly hold them.

There are lots of moral values and ethical norms that enlightened people reject but which Mother Nature has strongly selected for. Racism and xenophobia are optimally adapted to maximize the representation of your genes in the next generation, instead of some stranger's genes. Consider the almost universal patriarchal norms of female subordination. They are all the result of Darwinian processes. We understand why natural selection makes the males of almost any mammalian species bigger than the females: male competition for access to females selects for the biggest, strongest males and so makes males on average bigger than females. The greater the male-male competition, the greater the male-female size difference. We also know that in general, there will be selection for individuals who are bigger and stronger and therefore impose their will on those who are weaker—especially when it comes to maximizing the representation of their genes in the next generation. But just because the patriarchy is an inevitable outcome of natural selection is no reason to think it is right, correct, or true.

In fact, once we see that sexism is the result of natural selection's search for solutions to the universal design problem of leaving the most viable and fertile offspring, some of us are on the way to rejecting its norms. We can now explain away sexism as a natural prejudice that enlightened people can see right through. In different environments, natural selection has produced other arrangements; consider, for example, the social insects, where the top of the hierarchy is always a female.

Natural selection sometimes selects for false beliefs and sometimes even selects against the acquisition of true beliefs. It sometimes selects for norms we reject as morally wrong. Therefore, it can't be a process that's reliable for providing us with what we consider correct moral beliefs. The

fact that our moral core is the result of a long process of natural selection is no reason to think that our moral core is right, true, or correct.

Scientism looks like it faces a worse problem than the one Plato posed for theism. At least the theist can admit that there must be something that makes our moral core the right one; otherwise God would not have given it to us. The theist's problem is to figure out what that right-making property is. Faced with the widespread belief that the moral core is correct and faced with the fact that it was given to us by natural selection, scientism has to choose: did our moral code's correctness cause its selection, or did its selection make it the right moral core? As we've seen, scientism can't take either option.

Scientism cannot explain the fact that when it comes to the moral core, fitness and correctness seem to go together. But neither can it tolerate the unexplained coincidence. There is only one alternative. *We have to give up correctness.* We have to accept that core morality was selected for, but we have to give up the idea that core morality is true in any sense. Of course, obeying core morality is convenient for getting our genes copied in the next generation, useful for enhancing our fitness, a good thing to believe if all you care about is leaving a lot of offspring. If core morality is convenient, useful, good for any fitness-maximizing creature in an environment like ours to believe, then it doesn't matter whether it is really true, correct, or right. If the environment had been very different, another moral core would have been selected for, perhaps even the dog-eat-dog morality Herbert Spencer advocated under the mistaken label of social Darwinism. But it wouldn't have been made right, correct, or true by its fitness in that environment.

SCIENTISM STARTS WITH the idea that the physical facts fix all the facts, including the biological ones. These in turn have to fix the human facts—the facts about us, our psychology, and our morality. After all, we are biological creatures, the result of a biological process that Darwin discovered but that the physical facts ordained. As we have just seen, the biological facts can't guarantee that our core morality (or any other one, for that matter) is the right, true, or correct one. If the biological facts can't do it, then nothing can. No moral core is right, correct, true. That's nihilism. And we have to accept it.

Most people want to avoid nihilism if they can. And that includes a lot of people otherwise happy to accept scientism. Anti-nihilists, scientific and otherwise, may challenge the two premises of this chapter's argument for nihilism: the notion that there is a core morality and the idea that it made a difference for survival and reproduction. The irony is that together these two premises, whose truth implies nihilism, also take the sting out of it. The next chapter sketches enough of what science now knows about human evolution to underwrite both premises and so make them unavoidable for scientism. At the same time, it shows that nihilism is nothing to worry about.