

in volume when the pressure goes up also counts as evidence in favor of the negative claim that there are no gases that fail to decrease in volume when they increase in pressure without changing the temperature. There could not possibly be a gas that expands when its pressure increases (without changing the temperature). That is a negative existence claim we know to be true because it is not physically possible for it to be true.

Other things can be shown not to exist because their existence is logically impossible. Here's an example. Suppose there is a village barber who shaves customers who don't shave themselves. He lathers their faces and gives them a nice hot shave. If someone shaves at home, then they don't need to go to the barber, so the barber shaves only those who don't shave themselves. Does he also shave *everyone* who doesn't shave himself? The answer is no. Think about the barber—does he shave himself? If he does, then he doesn't need to go to the barber for a shave. Therefore he is not shaved by the barber, and must be unshaved since he himself is the barber. But if he doesn't shave himself, then the barber has to do it for him, in which case he does shave himself! Therefore it is logically impossible that a barber exists who shaves all and only those who do not shave themselves.

The upshot is that we can have evidence that a thing does not exist in the same way that we can have evidence that something does exist. We could be mistaken in our conclusions about what the world contains, of course, but all we can do is reason our way to what there is and what there is not. Evidence against God's existence can be provided—in principle—no less than evidence in favor of God's existence.

### The argument from religious pluralism

One sort of argument that motivates skepticism about God is the observation that there have been thousands of gods believed in by human societies all over the world. If you believe in a Judeo-Christian style God, that's no more than an accident of your birth. If you had been born in Indochina, you'd be Buddhist. If you were born in Saudi Arabia, you'd be Muslim, bow to Mecca and praise Allah. If you had been born in Israel, then you would be Jewish, read the Torah in Hebrew, and **worship** יהוה.<sup>65</sup> If in India, then you would most likely be Hindu, if you had been born in the sixteenth-century Aztec Empire, you would worship Huitzilopochtli (among the other 100 Aztec gods), and so on. Yet you think all of those other gods are just mythological. Jupiter and Hera are part of Roman mythology, right? They aren't out there in reality. Baal, Zeus, Horus, Loki, Bacchus, and Isis



are all phony, false gods. In other words, you are *already* 99 percent an atheist—you think that nearly all of the gods ever believed in are myths, superstitions, and nonexistent. So just go one step further and realize that *all* gods are just fantasies that people in different societies are raised to believe in. Let's formulate the argument as follows.

3.102 If you had been born and raised in a different culture, then you would have different religious beliefs from what you presently have. If you had been born in ancient Rome you would be completely convinced that Sol Invictus, Minerva, and the other state gods are absolutely real and that upstart Jesus cult is ridiculous heresy. You have no more reason to accept your god than those others; ancient Romans relied on faith, or their sacred scriptures, or the priests and church authority, or the cosmological argument, no less than you. It is inconsistent to believe that all these thousands of gods are fake and your god alone is real, when the evidence for any of these gods is the same. Since you have no reason to believe that any particular god is real (and the others aren't), the best way to make your beliefs consistent is to reject them all as myths.

3.103 *Objection* This time it is the theist who can respond with a scientific analogy. If you had been born in thirteenth-century China, you would have believed that Earth is flat. If you had been a Greek citizen during the time of Hippocrates, you would have believed that diseases were the result of an imbalance among the four bodily humors of blood, black bile, yellow bile, and phlegm. There is no end of now-discredited scientific theories that you would have believed if you had been born in a different culture or at a different time—Newton's mechanics, a luminiferous ether, the phlogiston theory of combustion, the caloric theory of heat, the geocentric model of the **universe**, etcetera.<sup>66</sup> All of those theories were once the best that science had to offer, and all have since been pitched into the dustbin of history.



3.104 Yet if we were to apply the same reasoning here as in the religious pluralism case, then it is inconsistent to believe that current science is right and all those other scientific views are wrong. We have the same reasons to accept what scientists tell us now that our ancestors had to believe the scientists of their time. Therefore we need to reject all scientific claims as myths. Obviously that is a big mistake; we *should* believe that contemporary science has hold of the truth and that those old discredited theories really are false. So something went wrong somewhere with the argument from religious pluralism, and it does not provide a good reason to be an atheist. There's no inconsistency involved in accepting one god and rejecting the

others, any more than there is a problem with accepting one scientific theory and rejecting its predecessors.

*Response* The problem with the theist's objection is that there is a crucial disanalogy between the plurality of scientific theories and the variety of religious belief. The disanalogy is this: there is publicly available, widely accepted evidence that a replacement scientific theory really is superior to its predecessor. When physicists chucked out the idea that the universe was suffused with a luminiferous ether through which light moved in favor of Einstein's Theory of Relativity, they had convincing reasons to prefer relativity. When physicians accepted germ theory and gave up on the notion that sickness was the result of miasma,<sup>67</sup> or "**bad air**," they had powerful evidence in favor of germs. So what compelling evidence is there that your preferred god is the only real one and all those other gods are just mistakes? 3.105

At this point the theist will have to go back to the pro-God arguments that were discussed earlier in this chapter and try to fix them up in response to the objections that were raised then. The atheist can only say: good luck with all that. In science there is a real sense of advancement, as flawed or incomplete theories are discarded and better theories of the world take their place. If we all still thought Newton's understanding of the laws of nature was as good as Einstein's, much of the modern world would be impossible (cell phone technology relies on understanding **general relativity**,<sup>68</sup> for example). In the case of religion there is no evidence-driven progress, just a great buffet of thousands of incompatible gods and theologies. You may put one on your plate and head to the cashier, but so long as your selection was based on faith, then it really is just arbitrary. 3.106

Let's move on to examine another argument for atheism. 3.107

### The problem of evil

The most famous argument against the existence of God attempts to show that the nature of God is incompatible with how the world actually is, and so it is impossible for there to be a God. To get things started, let's review some facts about the world we live in. First off, your life is sweet. Merely by reading this book you are more educated than the vast majority of people who have ever lived. You will probably live longer than the vast majority of people in the world. You are also richer than nearly everyone who has ever lived. You'll probably balk at that, since we're all accustomed 3.108



to wealth-porn TV and therefore lament that we don't live in a mega-mansion like those rap stars. But you *are* **rich**—about two billion people live on less than \$1.25 per day.<sup>69</sup> It is extremely likely that you are a citizen of a wealthy first-world nation and enjoy a stable government, reliable prices, public education, and at least some social safety net. In comparison with most of your fellow human beings, your life is gravy. Now reflect on the amount of suffering that you personally have experienced. Have you been close to someone who died, or had cancer or Alzheimer's? Have you been affected by mental illness? Broken bones? Been terribly sick? Addicted? Suffered anguish, loss, fear, loneliness, grief, shame, terror, or regret? Been burned, cut, or bruised? Ever had a **hangover**?<sup>70</sup> Your life is about as easy as it gets, and even you have endured physical and emotional pain.



3.109



It is extremely difficult to appreciate the vast extent of the suffering and misery the world contains. An untold number of people are **tortured**, even to death, every year.<sup>71</sup> Tens of millions have **died** in wars, genocides, and massacres,<sup>72</sup> hundreds of millions have died in **plagues and pandemics**,<sup>73</sup> and millions more have died in **floods, earthquakes, tsunamis, famines, volcanoes, tornadoes, and hurricanes**.<sup>74</sup> This brief review doesn't even touch on the rivers of blood spilled by nonhuman animals every year, 54 billion of whom we annually kill for food. To make a very long and gruesome story short, people's lives are marked by pain, from headaches to AIDS, and the world is soaked in gore and torment.

3.110

What's all this have to do with God? The problem of evil is that the manifest existence of all the world's suffering shows that there cannot be an omnibenevolent, omniscient, and omnipotent God. If there's suffering (and there is!) then there cannot be a God. Here's the argument.

1. Suppose that there is a God who is omnibenevolent, omniscient, and omnipotent.
2. The world is filled with suffering and misery.
3. Since God is omniscient, he knows about human and animal suffering and misery.
4. Since God is omnipotent, he could effortlessly prevent such suffering if he wanted to.
5. Anyone who knows about suffering and could effortlessly prevent it, but doesn't do so, is not perfectly good.
6. Therefore God is not perfectly good.
7. This contradicts (1)—therefore there is no God.

Premise (1) is no more than the assumption that God exists, which the argument makes in order to derive a contradiction, in classic *reductio ad absurdum* form. A theist would be hard pressed to deny premises (3) and (4), as they are really just elaborations on what it is to know everything and be all powerful. Premise (5) is more of a lynchpin in the argument, and it is worth a brief pause to defend it.

In April 2010, Queens resident **Hugo Alfredo** Tale-Yax attempted to help a woman who was being attacked.<sup>75</sup> In return he was stabbed to death by her assailant. While he bled to death on the sidewalk, two dozen people walked by and did nothing to help him. Even though video surveillance footage showed that one person snapped a cell phone picture of the dying man, and another shook him, no one could be bothered to call 911 or render first aid. Would you say that those bystanders are *perfectly* good? The absolute paragon of virtue and righteousness? No way. They're not even willing to push three numbers on their phones to save a man's life. Yet God's even worse than they are—he doesn't even have to dial 911. God's all powerful; it isn't heavy lifting for him to end suffering, indeed it literally is no effort at all. Yet, like pedestrians in Queens, he can't be bothered. That doesn't sound like the actions of a morally perfect, worshipful hero. Unless you think those passersby deserve a medal for ignoring Hugo Tale-Yax, the obvious inference is that God is not perfectly good either.

*Objection 1: Just give up an attribute* One response to the problem of evil is to just give up one of God's attributes. For example, suppose that God is all knowing and perfectly good, so that he knows about all the suffering in the world, and he wants to do something about it, but he just doesn't have enough power to stop it. God's kind of a wimp. Or we could give up omniscience. God is both perfectly good and all powerful, and he would eliminate suffering if he only knew about it. But he's kind of a dope and just doesn't have a clue. Or we abandon the attribute of omnibenevolence: God's all powerful and all knowing, but he's a malicious bastard, or a bloodthirsty tyrant. He knows about the world's suffering, all right, but like a Roman emperor at the **Colosseum**,<sup>76</sup> he enjoys the screaming and the blood. One wag has suggested that given the way the world is, the best inference is that God is 100 percent malicious but only 80 percent effective.

It is certainly true that God can keep any two out of the three traditional attributes and escape the problem of evil. The problem with this approach is that it is really just a way of conceding to the atheist. The atheist is

3.111



3.112



3.113

arguing that there is no God, where God is understood as a being that is omnipotent, omniscient, and omnibenevolent. Giving up one of the attributes is admitting defeat—it's conceding that there is no God with all three of the classical attributes. The atheist will say "Mission accomplished!" and have a cup of tea. You may want to argue that your conception of God is of a being that has only two of the three traditional attributes, and you believe *that* God is real. Unfortunately, such a reply is really to throw in the towel. The atheist will simply scratch one god off the list and move on to the next.

3.114 *Objection 2: It's all part of God's greater plan* The fundamental idea behind the God's greater plan objection is that our suffering is all part of God's grand plan for our happiness and flourishing. God's wisdom is beyond the wisdom of the world; his designs are subtle and mysterious. There is no denying that we suffer in this world and do not know why, but that does not mean that there is no God; it only shows that we fail to fathom the reason that we need to suffer. Perhaps our suffering in this world is a test, a way to prove our faith in God and demonstrate our worthiness for the afterlife. Or maybe without enduring pain in this life we will never be able to appreciate or comprehend the glories of the next. Whatever God's plan may be, we can rest assured that he has one, and that our earthly, temporal sufferings are but a drop in the bucket of eternity.

3.115 The "God's greater plan" proposal is often taken to refute what is called the logical problem of evil, namely the idea that the existence of suffering shows that it is logically impossible for there to be a God. God *might* have some good reasons as to why suffering is necessary, and instrumental to our greater happiness. Since he might, it is not downright impossible for God and evil to coexist. Of course, the possibility of God's existence isn't nearly as desirable as his actual existence. Will the "God's greater plan" idea show that it is really is reasonable to continue to believe in God, given the vast suffering in the world?



3.116 One response to the greater plan idea, as skillfully presented by **David Hume**,<sup>77</sup> is to object that it is nothing but pure, unprovable conjecture to suppose that there really is such a plan. At best it is a *possible* way out, not a genuine way out. Suffering is evident and manifest, and the plan is nothing but unfounded speculation. Even if the problem of evil is not conclusive, doesn't it show a superb reason to deny that there is a God? The idea of a greater plan is a *possible* solution, but not an *actual* one until we have reason to believe (1) that there really is such a "greater plan," (2) this

plan could not be accomplished without suffering, or at least, (3) this plan could not be accomplished without as much suffering as there actually is.

Compare: suppose that your philosophy professor walked out into class and just started **slapping** you.<sup>78</sup> Would you turn the other cheek, or would you at least say, “Whoa, what’s up with the face-slapping?” Imagine he tells you, “it’s all part of my greater plan for your education.” What would your response be then? “Oh, well, in that case, slap away!” Or would you say, “Hold on, at least tell me what the plan is.” Probably you’ll want some serious details on the plan before you submit to another round of beatings. Would you be satisfied with “Oh, don’t worry, I have your best interests at heart and know what I’m doing.”? Rather doubtful. But this is exactly what the theist is telling you to do: let God slap you around and just trust that he’s doing it because he really loves you. Why do you think that he has some glorious plan? It can’t be because you assume that God is perfectly good—that’s the very attribute that is under criticism here. The “greater plan” idea sounds more like an excuse for domestic violence. You deserve God’s beatings, which he’s only doing because he truly loves you. Just trust in his love! We could imagine that God has some unknown and mysterious plan, but, as Hume writes, these are “arbitrary suppositions” built “entirely in the air; and the utmost we ever attain by these conjectures and fictions is to show that [God’s having a greater plan that explains away evil] is *possible*; we can never in this way establish that it is *true*” (Hume, 1779, pt 10).<sup>79</sup>

Whatever the greater plan is supposed to be, it is rather hard to imagine that it must include the murder and torture of innocents, babies, and those who have never heard of God. Such a plan is seriously the best one that an all-knowing God could think up? It’s reminiscent of the **Vietnam War-era idea** of destroying a village in order to save it.<sup>80</sup> An often-floated hypothesis is that the sufferings of the world are a test for the faithful to demonstrate their worthiness. Apart from the complete lack of evidence for this conjecture, it is extremely puzzling as to why an all-knowing God would need to administer any sort of a test. He would already know in advance who will pass and who will fail; he could peer directly into a person’s mind (or metaphorical heart) without any need for some pointless test. It is irrational for God to test on the face of it.

In fact, rejoins the atheist, if God really does have some sort of greater plan, then why isn’t he really a sort of terrorist? God intentionally created everything, including diseases, floods, famines, earthquakes, tornadoes, hurricanes. It’s not just the wicked who suffer from these things; **God** sends the rain on the just and the unjust alike.<sup>81</sup> Suppose God does have a plan

3.117



3.118



3.119



for all this indiscriminate killing—it's to teach us a lesson, to punish us, revenge, get us to change our ways, test our faith, or something like that. How is that any different from what Osama bin Laden did? Osama, too, was out to teach the West a lesson, punish us for our various sins, get us to change our ways, and so on. In fact, God is a much, much worse terrorist than Osama—God's death toll is in the billions. Whether God really loves you is frankly irrelevant to the conclusion that he is a terrorist. Perhaps you sympathize with Osama's view that Western nations are filled with materialistic infidels, just as one may agree with God that we are all wicked sinners. They are terrorists either way. The atheist concludes that not only do we have no reason at all to suppose that there really is some greater plan that justifies our massive suffering, but even if there is one, all that really shows is that God is a terrorist.

- 3.120 *Objection 3: Free will* The most famous and popular response to the problem of evil is known as the free will defense, which goes like this. The atheist rightly observes all the suffering, pain, and misery in the world, but then makes the mistake of blaming God for it. Suffering is not God's fault, it is *our* fault. *We* are the ones who have freely chosen to disobey God and ignore his rules and commandments. When we sin, yes, it leads to suffering; that should be no surprise. Yet God is not to blame for the stupid and wicked deeds that we perform, any more than a father who has done his best to instruct his children is at fault when those children go astray. To be sure, there is suffering in the world, but God is not on the hook for it—we are. God made us free to choose how to live our lives, but the consequence of his gift is that he allowed us to create a world with substantial evil in it.

Response 1: Moral vs. natural evil

- 3.121 There are two kinds of evils in the world, moral evil and natural evil.
- Moral evils: murder, war, rape, torture, theft, deception, assault, etc.
  - Natural evils: diseases, floods, famines, earthquakes, tornadoes, hurricanes, volcanoes, etc.

Even if the free will defense absolves God of the suffering caused by moral evil, that doesn't touch the suffering caused by natural evil. Far more people have been killed by cancer, smallpox, and bubonic plague than by war. Humans do terrible things to each other, granted. But they cannot compare to the suffering imposed by famines and floods. Those things are all on God—an omnipotent, omniscient being could surely have designed the world so that it didn't have the flu (which killed over 40 million people in

just two years: **1918–1919**).<sup>82</sup> The physician Sir William Osler wrote, “Humanity has but three great enemies: fever, famine, and war; of these by far the greatest, by far the most terrible, is fever.” Osler died of pneumonia in 1919.



It would take extremely tortuous reasoning to try to blame natural evils on human beings; a clear case of blaming the victim. God’s the one dishing out cancer, he’s the one we should blame. Wars and murder may be our fault, but smallpox and earthquakes are God’s fault. 3.122

Response 2: What’s the value of free will?

At the heart of the free will defense is the idea that having free will is incredibly valuable; indeed it is so valuable that possessing it is worth all the suffering in the world. But what makes it so wonderful? That notion needs some defense. Since the reason we suffer is supposedly our free will, God might have made the world so that no one had any free will but we were all perpetually happy. What makes free will + massive suffering better than having no free will + universal happiness? It sounds rather implausible. Even now we limit people’s behavior (through laws) precisely to prevent them from freely performing evil. So we do think it is better to limit people’s freedom than to allow them to do whatever they want. Why not take that reasoning to the logical limit: God, in his infinite knowledge and compassion, should create a world in which no one is able to perform evil acts and all live in bliss and harmony. Or he might have made the world so that everyone *could* perform evil acts if they wanted to, but no one ever had the desire to do so. There’s a name for such a world: Heaven. Sounds better than this place, right? Wouldn’t you rather be there? Maybe having free will is not all it’s cracked up to be. 3.123

Response 3: The irresponsible owner

Imagine a dog owner who trains his pit bull to be a ferocious killing machine. The dog has a bad attitude, strong teeth, and jaw muscles that can tear the tires off a Honda. Imagine the dog owner takes **Cujo**<sup>83</sup> down to the town park and lets him off the leash. After the dog savagely mauls some innocent bystanders at the park, the owner is arrested. His defense to the judge is this: “Your honor, I didn’t tell Cujo to attack anyone. The dog has his own free will and freely chose to chomp those people. I yelled at him and told him to stop, but Cujo’s not such a good listener. It’s not my fault and I can’t be held accountable for what Cujo does.” 3.124



Do you figure that the dog owner is complete absolved of responsibility? The owner knowingly trained Cujo to be a killer and intentionally set him 3.125

loose in the park. Surely the owner had a good idea of what the likely consequences were going to be, and at the very least is criminally negligent, regardless of Cujo's free will. God is in exactly the same situation as the dog owner. Presumably God intentionally created people with their own drives and motivations, each with their own character and nature. Some people are pacifists, some are violent—we're not all stamped from the same cookie cutter. Yet God knew perfectly well which people were the wolves and which the sheep and went ahead and set the wolves loose. God may have yelled at the wolves and told them to stop, but they're not such good listeners. Just like the dog owner, God is still at fault for moral evil, free will notwithstanding.

Response 4: Why doesn't God intervene?

3.126 Here's one last criticism of the free will defense. One kind of morally good action is to prevent suffering, or to intervene in the wicked actions of others. In January, 2007, Wesley Autrey was waiting for a subway train in New York City. A nearby man, Cameron Hollopeter, suffered a seizure, which caused him to stumble off the subway platform and into the path of an incoming train. Without hesitation, Mr Autrey leapt onto the tracks and pulled Hollopeter into a foot-deep drainage trench between the tracks, covering Hollopeter's body with his own. The train roared overhead, passing inches from their heads, but both men survived with only minor scrapes. There can be little doubt about **Autrey's** heroic and admirable behavior; few people would have risked their own lives so spectacularly to save the life of a stranger.<sup>84</sup> Afterwards, Autrey was awarded the **Bronze Medallion**, New York City's highest award for exceptional citizenship and outstanding achievement.<sup>85</sup>

3.127 Or consider the anonymous bystanders who foiled a robbery in New Hampshire. In October, 2010, Sean Cullen entered a Manchester, NH convenience store, handed the clerk a threatening note, and told her, "Give me your money, or you're going to die." One store patron saw what was happening and tackled Cullen, while another bashed him over the head with a large squash. Surely these bystanders were the proverbial Good Samaritans, helping others in time of need. Sean Cullen was acting out of his own free will, but nevertheless the morally right thing to do was to stop him from **causing harm**.<sup>86</sup>

3.128 If Wesley Autrey had stood by and let Cameron Hollopeter be killed, or had the New Hampshire bystanders done nothing and let Sean Cullen rob the store, they would have been less morally praiseworthy. The morally best

thing to do in both cases was to intervene and prevent harm, even when it meant interfering with someone's free action. Having free will does not mean getting a free pass. Thus if God does not intervene when he can—stop the bullet, cure Grandma's cancer, prevent the Holocaust—he is morally inferior to mere mortals wielding squash. God can't hide behind an excuse of free will, pretending that justifies his hands-off policy.

It is true that if God steps up Superman-style and flies to the rescue every 3.129 time then that will prevent human beings from developing or exercising such virtues as self-sacrifice, helping, and bravery. A theist might argue that allowing moral evil is justified because the world is better off if we have genocide and war, but we also have courage and selflessness. In essence, God allows suffering because it builds character. Still, replies the atheist, it is difficult to see that such a view will be convincing to the parents of the children murdered in Rwanda, who would much prefer their children to live than enjoy whatever character-building they supposedly received because their children were slaughtered.

Finally, you may wish to consider how convincing the free will defense 3.130 really is after you read the chapter in this book on free will. There are reasons to believe that we don't even have free will in the sense of being able to make undetermined choices. If you are skeptical about the existence of free will at all, it won't serve as a legitimate way to escape the problem of evil.

## Conclusion

While the pros and cons of the most prominent arguments concerning the 3.131 existence of God have been discussed in the present chapter, there are still many theistic and atheistic arguments out there. Unexamined are pro-God arguments based upon reports of miracles or on personal religious experience. One of the most sophisticated contemporary theistic strategies is to treat divine revelations as basic sources of knowledge, akin to perception. That too is beyond the reach of the present chapter. Likewise unaddressed are anti-God arguments based on **Ockham's razor**,<sup>87</sup> which argue that positing a God has no explanatory value and should be avoided. Beyond the issue of God's existence are defenses of religion that find value in rituals and community building, even while not believing in a God. Buddhism and Unitarianism are examples of such religions. Whether God exists is a vital issue to decide in order to have a comprehensive view of the



contents of reality. All major philosophers have staked out a position on this topic, and now that you have an introduction to their arguments, it is up to you to decide which ones you find the most compelling.

### Annotated Bibliography

- Anselm of Canterbury (1078) *Proslogion*, full text available at [www.ccel.org/ccel/anselm/basic\\_works.iii.iii.html](http://www.ccel.org/ccel/anselm/basic_works.iii.iii.html), accessed May 15, 2012. In Chapter 2 Anselm gives his ingenious ontological argument.
- Aquinas, Thomas (c. 1270) “The Five Ways,” full text available at [www.ccel.org/ccel/aquinas/summa.FP\\_Q2\\_A3.html](http://www.ccel.org/ccel/aquinas/summa.FP_Q2_A3.html), accessed May 15, 2012, in *Summa Theologica*. Aquinas is the preeminent Catholic theologian, known as The Angelic Doctor. *Summa Theologica* is Aquinas’s masterwork, and in it he presents five arguments to prove God’s existence, including versions of the cosmological argument and the design argument.
- Bostrom, Nick (2009) “Pascal’s Mugging,” *Analysis* 69:3, 443–445. A short and wickedly funny take-down of Pascal’s wager.
- Dawkins, Richard (2006) *The God Delusion* (New York: Houghton Mifflin). A muscular defense of atheism written for a popular audience. The book is a bit uneven, but Dawkins is at his strongest when discussing the design argument, as his area of expertise is evolutionary explanations of complexity.
- Dawkins, Richard (2009) *The Greatest Show on Earth: The Evidence for Evolution* (New York: Free Press). Dawkins, a well-known evolutionary biologist at Oxford, reviews the empirical evidence for evolution by natural selection in a comprehensive but accessible volume.
- Dennett, Daniel C. (2007) *Breaking the Spell: Religion as a Natural Phenomenon* (New York: Penguin). Dennett investigates the nature and persistence of religious belief, drawing on anthropology, psychology, and evolutionary biology. He treats the study of religion with the same sort of skeptical approach typically brought to other areas of inquiry.
- Descartes, René (1641) *Meditations on First Philosophy*, full text available at [www.earlymoderntexts.com/pdfbits/dm3.pdf](http://www.earlymoderntexts.com/pdfbits/dm3.pdf), accessed May 15, 2012. In his Fifth Meditation, Descartes defends a version of the ontological argument. Descartes’s presentation is heavily dependent on other aspects of his philosophy, such as clear and distinct perception and innate ideas, and is thus more theory laden than Anselm’s original version.
- Gaunilo of Marmoutier (c. 1079) *In Behalf of the Fool*, full text available at [www.ccel.org/ccel/anselm/basic\\_works.v.i.html](http://www.ccel.org/ccel/anselm/basic_works.v.i.html), accessed May 15, 2012. Gaunilo, a contemporary of St Anselm, gives his “lost island” objection to the ontological argument.
- Hume, David (1779) *Dialogues Concerning Natural Religion*, full text available at [www.gutenberg.org/ebooks/4583](http://www.gutenberg.org/ebooks/4583), accessed May 15, 2012. The preeminent

- work of natural theology in English. The arguments for God's existence are pursued and critiqued by characters in a dialogue format. Hume thought this book so radical that he forbade its publication during his lifetime.
- Kant, Immanuel (1787) *The Critique of Pure Reason*, full text available at [www.earlymoderntexts.com/pdfbits/kc24.pdf](http://www.earlymoderntexts.com/pdfbits/kc24.pdf), accessed May 15, 2012. Kant's criticism of the ontological argument begins at section 620, and his complaint that existence is not a property is at section 626.
- Kauffman, Stuart (1995) *At Home in the Universe: The Search for the Laws of Self-Organization and Complexity* (Oxford: Oxford University Press). A polymath and iconoclast, Kauffman here presents his theory of how order can spontaneously arise in complex systems. He argues that his ideas complement the evolutionary explanation of life.
- Leibniz, Gottfried (1710) "Making the Case for God in terms of his Justice which is Reconciled with the rest of his Perfections and with all his Actions," full text available at [www.earlymoderntexts.com/pdf/leibmaki.pdf](http://www.earlymoderntexts.com/pdf/leibmaki.pdf), accessed May 24, 2012. Starting at section 41, Leibniz attempts to solve the problem of evil by arguing that ours is the best of all possible worlds.
- Manson, Neil (forthcoming) *This Is Philosophy of Religion: An Introduction* (Oxford: Wiley-Blackwell). A comprehensive introduction to the philosophy of religion that discusses religious language, the nature of God, life after death, the role of faith, religious diversity, and delves more deeply into the arguments for and against God's existence. Manson also addresses some conundrums of the divine, such as the Paradox of the Stone.
- Mlodinow, Leonard (2008) *The Drunkard's Walk: How Randomness Rules Our Lives* (New York: Pantheon Books). A fascinating and readable discussion of randomness and probability, with applications to sports, gambling, stock markets, and more. There is a nice discussion of Pascal in Chapter 4.
- Paley, William (1802) *Natural Theology*, full text available at <http://ocw.nd.edu/philosophy/introduction-to-philosophy-1/readings/paley-natural-theology-selections>, accessed May 15, 2012. Paley's presentation of the design argument is one of the most influential and most carefully developed. Darwin specifically discusses Paley's reasoning in *The Origin of Species*.
- Pascal, Blaise (1660) "The Wager," full text available at [www.ccel.org/ccel/pascal/pensees.iv.html](http://www.ccel.org/ccel/pascal/pensees.iv.html), accessed May 15, 2012, in *Pensées*. Pascal gives his wager argument starting at section 233. It is a surprisingly short discussion, which has generated a tremendous literature.
- Plantinga, Alvin (2000) *Warranted Christian Belief* (Oxford: Oxford University Press). A sophisticated book meant for professionals, this book represents the state-of-the-art in Christian apologetics. Plantinga's hefty tome is devoted to defending the claim that if God exists, then Christian beliefs have warrant.
- Price, Huw (1996) *Time's Arrow and Archimedes' Point: New Directions for the Physics of Time* (Oxford: Oxford University Press). A technical book for

philosophers, included here because it is the source for Roger Penrose's calculation of the improbability of the conditions in the early universe (it is on p. 83).

Smoot, George and Keay Davidson (2007) *Wrinkles in Time* (New York: Harper-Perennial). A beautifully written account of the standard model in cosmology. Smoot tells a thrilling story of his work on the experimental evidence for the Cosmic Microwave Background, for which he won the Nobel Prize in physics. Accessible to the educated lay audience.

Voltaire (the pen name of François-Marie Arouet) (1759) *Candide*, full text available at [www.gutenberg.org/ebooks/19942](http://www.gutenberg.org/ebooks/19942), accessed May 15, 2012. An hilarious satire on Leibniz's view that this is the best of all possible worlds.



## Online Resources

- 1 The Gallup Poll's claim that "83% say there is a God who answers prayers, while 9% believe there is a God who does not answer prayers": [www.gallup.com/poll/127721/Few-Americans-Oppose-National-Day-Prayer.aspx](http://www.gallup.com/poll/127721/Few-Americans-Oppose-National-Day-Prayer.aspx)
- 2 The Gallup Poll's evidence that 79 percent of Americans believe that the Earth revolves around the Sun: [www.gallup.com/poll/3742/New-Poll-Gauges-Americans-General-Knowledge-Levels.aspx](http://www.gallup.com/poll/3742/New-Poll-Gauges-Americans-General-Knowledge-Levels.aspx)
- 3 The Gallup Poll's evidence that 4 percent of Americans believed that Elvis was still alive almost a quarter century after his death: [www.gallup.com/poll/2638/August-23rd-Anniversary-Elvis-Death-Americans-Still-Consider.aspx](http://www.gallup.com/poll/2638/August-23rd-Anniversary-Elvis-Death-Americans-Still-Consider.aspx)
- 4 The history of the temple of Athena known as the Parthenon: [www.ancientgreece.org/architecture/parthenon.html](http://www.ancientgreece.org/architecture/parthenon.html)
- 5 Facts about the exquisite Blue Mosque in Istanbul, Turkey: [www.sacred-destinations.com/turkey/istanbul-blue-mosque](http://www.sacred-destinations.com/turkey/istanbul-blue-mosque)
- 6 The history of Angkor Wat, the largest Hindu temple complex in the world: [http://en.wikipedia.org/wiki/Angkor\\_Wat](http://en.wikipedia.org/wiki/Angkor_Wat)
- 7 Information on Michelangelo Buonarroti's 1499 sculpture of the Virgin Mary holding the body of her son Jesus Christ after his death: <http://saintpetersbasilica.org/Altars/Pieta/Pieta.htm>
- 8 A discussion of Michelangelo's famous painting on the ceiling and walls of the Sistine Chapel in the Vatican: [www.sacred-destinations.com/italy/rome-sistine-chapel](http://www.sacred-destinations.com/italy/rome-sistine-chapel)
- 9 An excerpt from Johann Sebastian Bach's *Mass in B Minor*: [www.youtube.com/watch?v=tdLCcQixNvg](http://www.youtube.com/watch?v=tdLCcQixNvg)
- 10 The first part of John Coltrane's *A Love Supreme*: [www.youtube.com/watch?v=558bTG0D-xg](http://www.youtube.com/watch?v=558bTG0D-xg)
- 11 George Harrison performs "My Sweet Lord": [www.youtube.com/watch?v=wynYMJwEPH8](http://www.youtube.com/watch?v=wynYMJwEPH8)

- 12 The iconic beginning of Strauss's *Also Sprach Zarathustra*: [www.youtube.com/watch?v=lyJwbwWg8uc](http://www.youtube.com/watch?v=lyJwbwWg8uc)
- 13 A discussion of Raphael's fresco *The School of Athens*, another treasure of the Vatican: [http://en.wikipedia.org/wiki/The\\_School\\_of\\_Athens](http://en.wikipedia.org/wiki/The_School_of_Athens)
- 14 The Metropolitan Museum of Art's entry on Jacques Louis-David's painting *The Death of Socrates*: [www.metmuseum.org/Collections/search-the-collections/110000543](http://www.metmuseum.org/Collections/search-the-collections/110000543)
- 15 The definition and history of the view that faith and reason are in conflict with each other, a position traditionally attributed to Tertullian: <http://plato.stanford.edu/entries/fideism/>
- 16 A biography of Martin Luther, along with a discussion of his theological views: [www.iep.utm.edu/luther/](http://www.iep.utm.edu/luther/)
- 17 Luther's 1540 treatise *Disputation on the Divinity and Humanity of Christ*: [www.iclnet.org/pub/resources/text/wittenberg/luther/luther-divinity.txt](http://www.iclnet.org/pub/resources/text/wittenberg/luther/luther-divinity.txt)
- 18 A brief discussion of natural theology: [www.giffordlectures.org/theology.asp](http://www.giffordlectures.org/theology.asp)
- 19 An entertaining list of fool's errands and practical jokes: [http://en.wikipedia.org/wiki/Snipe\\_hunt](http://en.wikipedia.org/wiki/Snipe_hunt)
- 20 A few of God's killings, as attested in the Bible: <http://drunkwithblood.com/index.html>
- 21 The sacred Hindu text *The Rig-Veda*: [www.sacred-texts.com/hin/rigveda/index.htm](http://www.sacred-texts.com/hin/rigveda/index.htm)
- 22 The sacred Hindu text *The Bhagavad Gita*: [www.sacred-texts.com/hin/gita/agsgita.htm](http://www.sacred-texts.com/hin/gita/agsgita.htm)
- 23 The Buddhist holy scripture *Pali Canon*: [www.palicanon.org/](http://www.palicanon.org/)
- 24 The Islamic holy scripture *The Qur'an*: <http://quran.com/>
- 25 *The Book of Mormon*, sacred to members of The Church of Jesus Christ of Latter-Day Saints: [www.lds.org/scriptures/bofm?lang=eng](http://www.lds.org/scriptures/bofm?lang=eng)
- 26 The most comprehensive online source for the sacred texts of religions from all over the world: [www.sacred-texts.com/](http://www.sacred-texts.com/)
- 27 A discussion of the logical fallacy of begging the question: [www.fallacyfiles.org/begquest.html](http://www.fallacyfiles.org/begquest.html)
- 28 A journalist's summary of recent critical scholarship concerning the historical claims of the Torah: [www.worldagesarchive.com/Reference\\_Links/False\\_Testament\\_\(Harpers\).htm](http://www.worldagesarchive.com/Reference_Links/False_Testament_(Harpers).htm)
- 29 The full text of Homer's *Iliad*: <http://classics.mit.edu/Homer/iliad.html>
- 30 The full text of Homer's *Odyssey*: <http://classics.mit.edu/Homer/odyssey.html>
- 31 An in-depth discussion of various versions of the ontological argument: <http://plato.stanford.edu/entries/ontological-arguments/>
- 32 Psalms 14:1, "The fool has said in his heart, "There is no God.": <http://bible.cc/psalms/14-1.htm>
- 33 The website for professional tennis player Rafa Nadal: [www.rafaelnadal.com/](http://www.rafaelnadal.com/)

- 34 The cosmological argument in classical Islam: [www.muslimphilosophy.com/ip/pg1.htm](http://www.muslimphilosophy.com/ip/pg1.htm)
- 35 The life, philosophy, and theology of Thomas Aquinas, the greatest of Catholic theologians: <http://plato.stanford.edu/entries/aquinas/>
- 36 An introduction to cosmology from NASA: <http://map.gsfc.nasa.gov/universe/>
- 37 A fine, detailed primer on cosmology from NASA: [http://map.gsfc.nasa.gov/universe/WMAP\\_Universe.pdf](http://map.gsfc.nasa.gov/universe/WMAP_Universe.pdf)
- 38 The full text of Schopenhauer's book *On the Fourfold Root of the Principle of Sufficient Reason*, the source of his line that the cosmological argument uses the principle of universal causation like a "hired cab": [http://openlibrary.org/books/OL7040205M/On\\_the\\_fourfold\\_root\\_of\\_the\\_principle\\_of\\_sufficient\\_reason](http://openlibrary.org/books/OL7040205M/On_the_fourfold_root_of_the_principle_of_sufficient_reason)
- 39 "Pay no attention to that man behind the curtain" scene from *The Wizard of Oz*: [www.youtube.com/watch?v=YWYCCJ6B2WE](http://www.youtube.com/watch?v=YWYCCJ6B2WE)
- 40 The Calibre 89 by Patek Philippe, the most complex pocketwatch ever made: <http://stylefrizz.com/200803/the-worlds-most-complicated-pocket-watch-patek-philippe/>
- 41 Allmovie's synopsis of *The Gods Must Be Crazy*: [www.allmovie.com/movie/the-gods-must-be-crazy-v20084](http://www.allmovie.com/movie/the-gods-must-be-crazy-v20084)
- 42 The opening scenes of *The Gods Must Be Crazy* when the Bushmen of the Kalahari encounter a Coke bottle that fell from the sky: [www.youtube.com/watch?v=gCQIGiXf0JA](http://www.youtube.com/watch?v=gCQIGiXf0JA)
- 43 The finches of the Galapagos Islands, and their role in helping Darwin formulate the theory of evolution by natural selection: [http://en.wikipedia.org/wiki/Darwin's\\_finches](http://en.wikipedia.org/wiki/Darwin's_finches)
- 44 Details on how eyes evolved: [http://en.wikipedia.org/wiki/Evolution\\_of\\_the\\_eye](http://en.wikipedia.org/wiki/Evolution_of_the_eye)
- 45 A discussion of snowflakes, crystals, and six-fold symmetry by a Caltech scientist: [www.its.caltech.edu/~atomic/snowcrystals/faqs/faqs.htm](http://www.its.caltech.edu/~atomic/snowcrystals/faqs/faqs.htm)
- 46 A fun kitchen experiment that instantaneously changes beer from liquid to solid: [www.youtube.com/watch?v=n\\_H5ZIoZSBo](http://www.youtube.com/watch?v=n_H5ZIoZSBo)
- 47 The creation of the Earth scene from *The Hitchhiker's Guide to the Galaxy*: [www.youtube.com/watch?v=MbNtlS69HhU](http://www.youtube.com/watch?v=MbNtlS69HhU)
- 48 M. C. Escher's drawing of self-creating hands: [http://en.wikipedia.org/wiki/Drawing\\_Hands](http://en.wikipedia.org/wiki/Drawing_Hands)
- 49 An in-depth discussion of Pascal's wager: <http://plato.stanford.edu/entries/pascal-wager/>
- 50 The nature of the Higgs Boson particle and why it matters to physics: [http://en.wikipedia.org/wiki/Higgs\\_boson](http://en.wikipedia.org/wiki/Higgs_boson)
- 51 Facts about the rare ivory-billed woodpecker: <http://web4.audubon.org/bird/ivory/ivory.php>
- 52 The fighting talents of Jet Li: [www.youtube.com/watch?v=2SK9kFyQxNw](http://www.youtube.com/watch?v=2SK9kFyQxNw)

- 53 The “show me the money” sequence from the film *Jerry Maguire*: [www.youtube.com/watch?v=LnrB8HnQvFU&feature=related](http://www.youtube.com/watch?v=LnrB8HnQvFU&feature=related)
- 54 Ascetic monks in *Monty Python and the Holy Grail* chant “Pie Jesu Domine, dona eis requiem”: [www.youtube.com/watch?v=YgYEuJ5u1K0](http://www.youtube.com/watch?v=YgYEuJ5u1K0)
- 55 Gordon Gekko’s speech that greed is good, from the film *Wall Street*: [www.youtube.com/watch?v=Muz1OceZJOs&feature=related](http://www.youtube.com/watch?v=Muz1OceZJOs&feature=related)
- 56 A guide to over 3000 deities, demons, and spirits from around the world: [www.godchecker.com/](http://www.godchecker.com/)
- 57 A Gallup Poll showing that Americans would rather vote for someone Jewish, Catholic, Mormon, a woman, black, Hispanic, homosexual, 72 years of age, or someone married for the third time before they voted for an atheist: [www.gallup.com/poll/26611/Some-Americans-Reluctant-Vote-Mormon-72YearOld-Presidential-Candidates.aspx](http://www.gallup.com/poll/26611/Some-Americans-Reluctant-Vote-Mormon-72YearOld-Presidential-Candidates.aspx)
- 58 Sociological research that shows Americans would rather their children marry someone from every other marginalized group studied before marrying an atheist: <https://www.soc.umn.edu/~hartmann/files/atheist%20as%20the%20other.pdf>
- 59 A report on research showing that atheists are distrusted as much as rapists: <http://digitaljournal.com/article/315425>
- 60 Survey evidence about the beliefs of professional philosophers over a wide variety of topics, including God: <http://philpapers.org/surveys/results.pl>
- 61 A survey of what the members of the National Academy of Sciences believe about God and personal immortality: [www.stephenjougould.org/ctrl/news/file002.html](http://www.stephenjougould.org/ctrl/news/file002.html)
- 62 A discussion of the life and work of biologist Richard Dawkins: [http://en.wikipedia.org/wiki/Richard\\_Dawkins](http://en.wikipedia.org/wiki/Richard_Dawkins)
- 63 The self-described “ultimate and official Loch Ness Monster site”: [www.nessie.co.uk/](http://www.nessie.co.uk/)
- 64 The history and definition of Boyle’s gas law: [http://en.wikipedia.org/wiki/Boyle's\\_law](http://en.wikipedia.org/wiki/Boyle's_law)
- 65 The history of the god Yahweh: <http://en.wikipedia.org/wiki/Yahweh>
- 66 A list of superseded, obsolete scientific theories: [http://en.wikipedia.org/wiki/Obsolete\\_scientific\\_theory](http://en.wikipedia.org/wiki/Obsolete_scientific_theory)
- 67 A discussion of the discarded view that disease is caused by “bad air” instead of contagion: [http://en.wikipedia.org/wiki/Miasma\\_theory\\_of\\_disease](http://en.wikipedia.org/wiki/Miasma_theory_of_disease)
- 68 An article that explains why the global positioning system (GPS) depends upon the truth of general relativity: [www.metaresearch.org/cosmology/gps-relativity.asp](http://www.metaresearch.org/cosmology/gps-relativity.asp)
- 69 The World Bank’s poverty statistics and indicators: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/0,,contentMDK:22569498~pagePK:148956~piPK:216618~theSitePK:336992,00.html>

- 70 Allmovie's synopsis of *The Hangover*: [www.allmovie.com/movie/the-hangover-v420157](http://www.allmovie.com/movie/the-hangover-v420157)
- 71 Information on torture from Amnesty International: [www.amnestyusa.org/our-work/campaigns/security-with-human-rights?id=1031032](http://www.amnestyusa.org/our-work/campaigns/security-with-human-rights?id=1031032)
- 72 A sobering death toll of wars, genocides, and other anthropogenic causes: [http://en.wikipedia.org/wiki/List\\_of\\_wars\\_and\\_disasters\\_by\\_death\\_toll](http://en.wikipedia.org/wiki/List_of_wars_and_disasters_by_death_toll)
- 73 The death toll of diseases and natural disasters: [http://en.wikipedia.org/wiki/List\\_of\\_natural\\_disasters\\_by\\_death\\_toll#Contractible\\_diseases](http://en.wikipedia.org/wiki/List_of_natural_disasters_by_death_toll#Contractible_diseases)
- 74 A list of natural disasters by death toll: [http://en.wikipedia.org/wiki/List\\_of\\_natural\\_disasters\\_by\\_death\\_toll](http://en.wikipedia.org/wiki/List_of_natural_disasters_by_death_toll)
- 75 A news report on the murder of Hugo Alfredo Tale-Yax and the indifferent passers-by: <http://gawker.com/5523739/more-than-20-people-passed-as-homeless-new-york-man-bled-to-death>
- 76 The history and description of the Flavian Amphitheater, better known as the Colosseum of Rome: <http://en.wikipedia.org/wiki/Colosseum>
- 77 A detailed discussion of David Hume's writings on the philosophy of religion: <http://plato.stanford.edu/entries/hume-religion/>
- 78 A faceslap in super slow motion: [www.youtube.com/watch?v=3BRw\\_ihZRJI](http://www.youtube.com/watch?v=3BRw_ihZRJI)
- 79 The complete text of David Hume's *Dialogues Concerning Natural Religion*: [www.earlymoderntexts.com/pdfbits/hd3.pdf](http://www.earlymoderntexts.com/pdfbits/hd3.pdf)
- 80 The money quote: "Writing about the provincial capital, B n Tre, on 7 February 1968, [AP correspondent Peter] Arnett cited an unidentified US military official as follows: 'It became necessary to destroy the town to save it,' a United States major said today. He was talking about the decision by allied commanders to bomb and shell the town regardless of civilian casualties, to rout the Vietcong.": [http://en.wikipedia.org/wiki/B%E1%BA%BFn\\_Tre](http://en.wikipedia.org/wiki/B%E1%BA%BFn_Tre)
- 81 Matthew 5:45: God sends the rain on the just and the unjust alike: <http://bible.cc/matthew/5-45.htm>
- 82 The history of the 1918–1919 flu pandemic: [www.flu.gov/pandemic/history/1918/index.html](http://www.flu.gov/pandemic/history/1918/index.html)
- 83 A synopsis of Stephen King's novel about a killer dog, *Cujo*: [www.stephenking.com/library/novel/cujo.html](http://www.stephenking.com/library/novel/cujo.html)
- 84 The heroism of Wesley Autrey, who saved a stranger from being killed by a subway train: [www.nytimes.com/2007/01/03/nyregion/03life.html?\\_r=3](http://www.nytimes.com/2007/01/03/nyregion/03life.html?_r=3)
- 85 A photo of New York City mayor Bloomberg presenting Wesley Autrey with the Bronze Medallion, the City's highest award for exceptional citizenship and outstanding achievement: [www.nyc.gov/portal/site/nycgov/menuitem.1cac08e0805942f4f7393cd401c789a0/index.jsp?eid=11708&pc=1095](http://www.nyc.gov/portal/site/nycgov/menuitem.1cac08e0805942f4f7393cd401c789a0/index.jsp?eid=11708&pc=1095)
- 86 The story of a would-be robber foiled by squash: [www.wmur.com/r/25578010/detail.html](http://www.wmur.com/r/25578010/detail.html)
- 87 A detailed discussion of theoretical parsimony, simplicity, and Ockham's razor: <http://plato.stanford.edu/entries/simplicity/>