

DOES GOD EXIST?

A DIALOGUE ON THE PROOFS
FOR GOD'S EXISTENCE

SECOND EDITION



TODD C. MOODY

Does God Exist?

**A dialogue on the
proofs for God's existence**

Does God Exist?

**A dialogue on the
proofs for God's existence**

Second Edition

Todd C. Moody

Hackett Publishing Co., Inc.
Indianapolis/Cambridge

Copyright © 2013 by Hackett Publishing Company, Inc.

All rights reserved

Printed in the United States of America

16 15 14 13 1 2 3 4 5 6 7

For further information, please address

Hackett Publishing Company, Inc.

P.O. Box 44937

Indianapolis, Indiana 46244-0937

www.hackettpublishing.com

Cover design by Brian Rak

Interior design by Elizabeth L. Wilson

Composition by Innodata-Isogen, Inc.

Library of Congress Cataloging-in-Publication Data

Moody, Todd C.

Does God exist? : a dialogue on the proofs for God's existence / Todd C.

Moody. — Second Edition.

pages cm

ISBN 978-1-62466-040-5 (pbk.) — ISBN 978-1-62466-041-2 (cloth)

1. God (Christianity) 2. God—Proof. 3. Theodicy. I. Title.

BT103.M657 2013

212'.1—dc23

2013016741

Adobe PDF ebook ISBN: 978-1-62466-095-5

Contents

<i>Preface</i>	<i>vii</i>
1. The Burden of Proof	1
2. Nothing Comes from Nothing	14
3. A Necessary Being	27
4. The Natural Order	50
5. Suffering	67
6. Miracles	88
7. More Gaps	107
8. The Role of Experience	122
9. The Space of Reasons	133
<i>Suggested Readings</i>	<i>143</i>

Preface

This dialogue started out as a short handout that I used in philosophy classes quite a few years ago. I kept adding to the handout, and eventually it became the first edition of this book. In the years since publication I've received generally positive mail from instructors who have used it, and sometimes from students looking for help with their homework. I've had mail from people who are sure they know which of the three characters is *me*. I regard this as a good thing. The truth is, my own views on the subject have wandered quite a bit. Although my goal was never to write an account of my own wanderings, I think it's impossible for a work like this not to reflect them. I think this is a good thing too.

Times change, and, contrary to popular belief about philosophy, the arguments change too. Old arguments take on new forms and receive new criticisms. I've tried to include some of that newness in this rewrite, but I've also put in some older material that I simply overlooked in the first edition, such as C. S. Lewis's argument from reason, and the problem of animal suffering. I've removed entire sections that, by my own judgment and that of others, didn't work so well. But my overall goal has been the same: to provide an engaging and natural overview of some of the main arguments about the existence of God, and to do so in a way that isn't overly weighted with specialized terminology and references to the literature. I couldn't avoid philosophical terminology and references to important philosophers entirely, of course, but I've kept it to a minimum. I recognize that many will find it a stretch to think of philosophical argumentation as "natural" in any way. To me, however, the dialogue form is a very natural way to present philosophy, and even though Plato made it famous, dialogue has been underutilized since his time, in my opinion. Dialogue, when sincere, is a kind of collaborative thinking-through, a method of great potential power. When not sincere, of course, it can collapse into mere controversy and even bullying. In this book I try to model the kind of dialogue where the interlocutors really listen to each other, despite holding

strongly to their own views. They respect and like each other, even in disagreement. Most important, their disagreement doesn't inhibit them from presenting their positions with conviction. This is important, and I make the point explicit in the dialogue itself, near the end. I think it's part of the mission of philosophy to keep this sort of dialogue alive, especially in an era when what passes for dialogue is often merely the exchange of talking points. Like real conversation, the dialogue includes digressions, switchbacks, and repetitions. I think this is important. A proper dialogue shouldn't try to be a monograph broken up into little speeches.

The God whose existence is under discussion is conceived in a way that falls squarely within the Western monotheistic traditions. Although passing mention is made of non-Western conceptions, it's not a goal of this dialogue to offer an overview of those traditions. Neither is it my intention to undertake an examination of specifically Christian, Jewish, or Islamic teachings about God. It is, as far as possible, about "mere theism." I recognize, however, that it isn't really possible to separate ideas and arguments about God's existence from the traditions in which they arose. "Mere theism" is an artificial construction, one that has no real tradition and few adherents. But artificial constructions have their uses. To the extent that Christian ideas in particular are found in the text (and they are), it's because they are most familiar to me and present in the literature that I've studied. I'm aware that there are other responses to the issues of theism found in other traditions, but apart from the occasional nod in their direction, I make no attempt to survey them. If this rises to the level of a bias, so be it. I need hardly point out that very little of the philosophical content of this dialogue is original with me. I haven't seen the brute-fact construal of the Cosmological Argument anywhere else, and I certainly recognize that the distinction between natural and personal causation, and the use to which I put it, is controversial, to say the least. Still, I think it adds to the mix. Beyond that and a few other minor variations, I only claim originality for the presentation. I hope the result is worthwhile.

Chapter 1

The Burden of Proof

The scene is the game room at a college. It's late in the afternoon, and there are no students around except for three who have gathered around a battered pool table, taking turns in friendly games of eight ball.

DAVID: Come on, God, just let me make this shot.

OSCAR: That's a fine way to talk. Does God go in for pool?

DAVID: Well of course it's just a figure of speech. I wouldn't really ask for God's help to win a game.

OSCAR: Seems to me that maybe you could use a little help. Are you serious, though? Do you really believe in God? I always thought you were reasonably intelligent. Not spectacularly intelligent, mind you, but—

DAVID: That's enough. Yes, it just so happens that I do believe, but I don't think that makes me less intelligent than anyone else. A lot of very intelligent people have believed and still do believe in God.

OSCAR: No doubt. A lot of intelligent people once believed in witchcraft, astrology, flat earth, and phlogiston too. Most of those people would reject those beliefs, if they were around today and had access to the breadth and depth of knowledge that we have.

DAVID: So your idea is that modern people who believe in God are unintelligent. Is that it?

OSCAR: Maybe "unintelligent" is a bit strong. Let's just say I think that, given our current state of knowledge, a belief in God is completely unsupported, bordering on irrational. Is that better?

DAVID: It's clearer anyway. At least you're no longer calling believers idiots, and that must be a step in the right direction. Still, what makes you so sure God doesn't exist? Hand me that chalk, will you?

OSCAR: Here you are. So . . . I guess the main reason why I don't believe God exists is that nobody has offered any convincing proof that he does.

DAVID: Maybe so, but that doesn't prove that he doesn't exist.

OSCAR: Of course, but the burden of proof is on the theist.

DAVID: Why? That sounds like a cheap debater's trick to me.

OSCAR: Not at all. The burden of proof isn't arbitrary. There are logical principles involved. If a person makes a claim that is, on the face of it, contrary to common sense, then it's that person's job to show that common sense is wrong. Nobody can see God or hear him or touch him, so common sense tells us that he isn't there. The burden of proof is on anyone who says he is.

DAVID: Hold on a minute. Aren't you leaning pretty hard on common sense here? It seems to me that it's a stretch to use common sense as a principle for discussing something like the existence of God. There are a lot of things that exist that we can't see or hear or touch. Numbers, for example. . . . Does common sense tell you that they don't exist either?

OSCAR: They *don't* exist in the way that you and I do. They're just ideas in our heads; they depend on us for existence. I *don't* doubt that the idea of God exists, any more than I doubt that the idea of the tooth fairy exists. What I doubt is that either one of these ideas is about anything *real*.

SOPHIE: Pardon me for butting in, but there's something very interesting about what you just said, Oscar.

OSCAR: Thank you. I try to say interesting things. When I can't, I settle for true things.

SOPHIE: And when you run out of true things—but never mind. What you said was that numbers are ideas that depend on us for existence. Did you mean that to be interesting or merely true?

OSCAR: It's both.

SOPHIE: Would you go further and say that anything that depends on numbers is also therefore dependent on our minds for its reality, if I may use that word?

OSCAR: I'm not sure where you're going with this, but sure, I'll accept that claim. What did you have in mind?

SOPHIE: Just this: Some truths depend on numbers, such as the truth of the statement that $2 + 2 = 4$. Since you are evidently an atheist, I take it that you would say that before the evolution of life in the universe there were no minds around at all.

OSCAR: I'm beginning to get the drift. Anyway, yes, before there was life, there were no minds. If there are any nonliving minds, such as those of robots, they would have to be produced by living beings that already have minds, so they'd have to come later.

SOPHIE: I see you think that it takes a mind to make a mind. That's interesting too, but maybe we'll come back to it later. Right now, I want to focus on what you just said about numbers. It commits you to the very interesting claim that before life evolved it wasn't true that $2 + 2 = 4$.

OSCAR: Okay, but it wasn't false either.

SOPHIE: I hope you don't think it's any less startling to say that at some point in the past it was neither true nor false that $2 + 2 = 4$.

OSCAR: Maybe you should tell me what it means to say that a truth exists, anyway. Is it the same as saying that something *is true*? I think it makes sense to say that before there was life it was true that $2 + 2 = 4$, but this thing you're calling "the truth that $2 + 2 = 4$ " didn't exist until later. It depends on what you mean by "a truth." If it's something like a true *belief* or a true *statement*, then I have no trouble saying that it didn't exist until there was somebody to believe or state it.

SOPHIE: That's a good point, Oscar. But if you think of truth as a kind of relation between the things we think or say and some aspect of reality, then my point is that the *fact* that $2 + 2 = 4$ seems to be something real that makes the belief or statement true.

OSCAR: So now you're adding facts to the mix, just to confuse me. And what does any of this have to do with the existence of God anyway?

SOPHIE: Sorry about the confusion. I think David's point was that there are some things we know are real that we don't perceive with our senses. Numbers or facts about numbers are examples.

OSCAR: I still think you're just talking about things in our minds. They're not real the way that cue ball is real. But facts about numbers can be known with the senses. There are five balls on the table. If I sink the five ball, there will be four left. You can see them and count them. Seeing is sensory. The numbers may be abstractions, but the facts about them, as applied to this pool table, are perfectly concrete.

SOPHIE: This counting that you mention sounds like something that goes on in your mind too. You don't actually observe the "five-ness" of the balls on the table until you do this mental thing called counting. Anyway, if we're going to talk about things in our minds, I'm going to make a distinction between two kinds. There are imaginary things, like the tooth fairy. They're imaginary because we can use our imagination to make them any way we want. The facts about numbers aren't like that. They push back. The square root of two just can't be expressed as a fraction, no matter how much you try to imagine it. That fact impinges on the mind just as much as any sensory fact. To me, that makes it *real*.

OSCAR: Fine. I'll give you that. But God isn't a number or a mathematical fact anyway, so I still think this whole numbers thing is a decoy. What's more, God doesn't *push back*. I can think what I want about God, believe or not, and I have no sense of running into something solid.

DAVID: If you concede that there's more to reality than what you can see, hear, or touch, then the existence of God is a little less unbelievable. And that reminds me, you said that the burden of proof is on the theist because the existence of God is *contrary* to common sense.

OSCAR: I'm glad to get the conversation back on track. Yes, that's exactly what I did say.

DAVID: Contraries are things that can't both be true, like saying that something is wet and dry at the same time. How is the existence of God *contrary* to common sense? Common sense tells us we live in a world of rocks and trees and oceans and stars, right? How is the existence of God contrary to any of that?

OSCAR: Common sense shows me that all those things are real, and even the mathematical facts that Sophie was talking about. But common sense has nothing to say about God.

DAVID: If that's true, at most it shows that the existence of God is *outside* of common sense or beyond it; it doesn't show that it's contrary to it. And really, science and mathematics tell us a lot of things that go way beyond common sense.

OSCAR: Yes, that's right! They tell us a lot of things that are even contrary to common sense, but when they do, they accept the burden of proof. To think that all material things are made of tiny particles that we can't see isn't common sense. We believe it anyway because scientists were eventually able to prove it. I remind you that we were talking about the burden of proof. So I'll modify my original statement: The burden of proof is on the person who claims anything that is either contrary to or beyond common sense. So even if the existence of God isn't contrary to common sense, you've conceded that it's beyond it. The burden of proof is therefore on you.

SOPHIE: I hate to pile on, David, but there's another reason why you get the burden of proof. You're making an *existence claim*. Since it's usually impossible to show that something doesn't exist, the person making the existence claim has the burden of proof.

DAVID: It doesn't seem quite fair. If the theist can't prove that God exists and no one can prove that he doesn't, why not just leave it in the "unknown" category? I'm not saying that a good case can't be made for God's existence, but I don't see why atheism gets to be the default position, with the atheist off the hook for producing proof.

SOPHIE: Maybe this is the common sense part. How do you decide what to believe in, in general?

DAVID: I don't understand your question.

SOPHIE: I mean, do you usually believe only in the things that you have good reason to believe in, or do you believe in everything that hasn't been shown *not* to exist?

DAVID: Doesn't it come to the same thing?

SOPHIE: Not at all. Think about it. Do you believe there are unicorns?

DAVID: No.

SOPHIE: Why not?

DAVID: They're mythological creatures, inventions of human imagination.

SOPHIE: But how do you know that?

DAVID: I see where you're going. I guess I don't believe in unicorns because I've never been given any good reason to believe in them. No one has ever found one or the remains of one or anything like that.

SOPHIE: Right. But you have a choice. You can say, "I won't believe in unicorns until I have solid evidence for their existence," or you can say, "I'll believe in unicorns until there is solid evidence that they don't exist." But if you make a general practice of thinking the latter way, you'll end up believing that a lot of things exist, even though there's no actual evidence for their existence, just because no one has shown that they don't exist. Common sense says that's not the right way to go.

DAVID: What's wrong with keeping an open mind?

SOPHIE: There's nothing wrong with it, but you want to be careful about what it means to keep an open mind. Open-mindedness means being willing to look at new evidence and modify your beliefs in the light of it. But if there's no evidence *for* unicorns, I wouldn't call it open-mindedness to believe in them just because no one has shown that they don't exist. That's just silly. On the other hand, if someone found what appeared to be the skeleton of a unicorn in a peat bog somewhere, open-mindedness would mean taking the discovery seriously as evidence in favor of the existence of unicorns.

DAVID: Maybe we should just be unicorn agnostics then, since no one has given evidence that they do exist and no one has shown that they don't.

SOPHIE: That would entail that we should be agnostics about a lot of things that, frankly, no one is truly agnostic about. And this illustrates the general problem about existence claims. It's very hard to prove a *negative* existence claim, a claim that something doesn't exist. In contrast, it's fairly straightforward to prove a positive existence claim, that something does exist.

DAVID: How so?

SOPHIE: To demonstrate that something does exist, you can produce it or show it or show unmistakable traces of it, or something along those lines, like that hypothetical unicorn skeleton in the peat bog. To demonstrate that something doesn't exist, you can say that you looked here and you looked there and found no sign of it. You can give a long list of places and ways that you looked, but you can't look everywhere, so it's always possible that the thing is somewhere that you didn't look. This is why the burden of proof is on the person who makes a positive existence claim.

DAVID: I get your point, but I'm still not entirely comfortable with it. Suppose I say, "There's no such thing as an honest atheist—"

OSCAR: Hey! I resent that!

DAVID: I thought that would get your attention. Anyway, that's a negative existence claim. Are you saying that I have no responsibility to support it?

OSCAR: It's easy to show that there are honest atheists.

DAVID: I agree, Oscar, but Sophie's point is that the burden of proof is on the shoulders of the person making a positive existence claim, and the person making a negative claim is off the hook.

SOPHIE: That's a fair point, David. If you made a claim like that I'd be the first to ask you to support it, and even to ask you how you could possibly know such a thing.

DAVID: So it's not quite as simple as what you said. The burden of proof doesn't always go to the person making the positive existence claim. There's more to it than that.

OSCAR: I don't see why we're getting so tangled in this question of the burden of proof and open-mindedness and all that. Weren't we talking about the existence of God?

DAVID: Yes, but I brought in the point about open-mindedness because I've met many people who gave the impression that nothing could ever get them to revise their disbelief in God, no matter how powerful the reasons might be. To me, that's the opposite of open-minded; their beliefs are not open to revision.

OSCAR: Are yours?

DAVID: I like to think so, Oscar. The fact that I haven't always believed in God proves it.

OSCAR: It only proves that you used to be open-minded, not that you still are.

SOPHIE: Fascinating as this is, I don't really want to get into a discussion of who's open-minded and who isn't. Let's just agree that sound reasoning on either side of the question ought to make a difference to an open-minded person.

DAVID: That's fine with me, since I think there's good evidence for God's existence.

OSCAR: I can't wait to see what this evidence is, my friend. It's your shot, as we say in billiards.

During a lull in the discussion, David wins the game. Sophie steps up to the table and racks the balls. She then takes Oscar's cue stick and waits for David to break.

SOPHIE: Nice break, David. I won't comment about who may or may not be on your side.

DAVID: Why thank you, and I assure you that God didn't intercede for me to sink those two striped balls. You know, I'm still thinking about this burden-of-proof business. I see the point about

positive and negative existence claims, but it seems to me that what's really going on is that the burden of proof goes to the person making the claim that's—um—bolder.

SOPHIE: Bolder? What do you mean?

DAVID: I'm trying to think how to say this. By "bolder" I mean the more surprising or unexpected claim; something like that.

SOPHIE: Surprising or unexpected to who?

OSCAR: Or *whom* . . . ?

DAVID: What I'm getting at is that the burden of proof seems to depend on background knowledge, the things that people generally accept without challenge. So if I say there's no such thing as an honest atheist, that's going to trigger a challenge because it doesn't fit with what people generally believe. If I say there's no such thing as a unicorn, no one will challenge me to prove it. And the same thing goes for positive existence claims. If I claim that there are leprechauns, that will trigger a challenge for proof, but if I claim there are black cats, no one will ask for anything, because everyone already knows it.

OSCAR: However you slice it, the existence of God is more like leprechauns than it is like black cats.

SOPHIE: But I see David's point. The burden of proof depends at least in part on what things people are prepared to accept without proof. I think that's what we were calling "common sense." But not everybody has the same common sense of things. We don't all bring the same background knowledge to the table.

OSCAR: Then it can't all be knowledge, can it? I sense that you're about to say that since a depressingly large number of people are prepared to accept the existence of God without proof—as so-called background knowledge—the believer can take the day off. Is that it?

DAVID: That's not where I'm headed. I accept the challenge to make a positive case for the existence of God. I'm just pointing out that the burden of proof isn't such a neutral thing. But I'm thinking about what Sophie said a little while ago, about proving positive existence claims by *producing* or *showing* something. That works fine

when we're talking about physical things, but when it comes to God, producing or pointing or showing are out of the question.

OSCAR: Hah! And what does that tell you?

SOPHIE: Not so fast, Oscar. Say some more about that, David.

DAVID: Sure. If you asked me whether green roses exist, the best thing for me to do would either actually to show you one or to offer some evidence, such as a picture, that you would accept. That's what I mean by "producing" or "showing."

SOPHIE: What about a proof that a prime number greater than any given number exists? Would that involve showing?

DAVID: There we go again. The trouble is, I don't really want to defend the view that God is an abstraction, like a prime number. In any case, mathematicians handle this sort of thing by means of a constructive proof. In a constructive proof you show *how* you can generate a prime larger than any given number. I just don't think that sort of proof is relevant to God, because I don't think God is a mathematical object or even very much like one.

SOPHIE: The problem, then, is that there are two kinds of proof, depending on the kind of thing whose existence you're trying to prove. If it's a concrete object, the proof is in the showing; if it's an idea or abstraction, the proof is purely formal, like a proof in geometry or logic. Is that about right?

DAVID: That's it exactly. And neither sort of proof seems to fit when we're talking about God.

OSCAR: This sounds like an evasion to me. Besides, it amounts to saying that a convincing case for the existence of God just can't be made, which is what I would say anyway. And that's the same as saying there's no good reason to believe in God.

SOPHIE: It may turn out that way, but I think there's more to it. Consider a claim like "Dinosaurs once roamed the earth." That's a positive existence claim, but nobody can produce a dinosaur or show one.

OSCAR: We can show their fossil remains, and bones, etc., which is just as good.

SOPHIE: Of course, but remains aren't dinosaurs; they're the *traces* of dinosaurs. There are plenty of instances in science when existence claims can't be supported by direct observation but only by inference from other things that can be observed.

DAVID: That's true. Astrophysicists claim that there must be a lot of dark matter in the universe, not because they can show us any of it but because it's the best way they can make sense out of the fact that the universe holds together.

SOPHIE: Exactly. There are tons of examples. Mendel was able to *show* that inheritance of traits follows mathematical patterns, so it made good sense to suppose that there must be some substance in the cell that carries hereditary information. He didn't have a clue what that substance was. The actual discovery that DNA was the right stuff came much later. And of course detectives use this form of reasoning all the time. You're at the crime scene, and you look at the physical evidence and say, "There must have been an accomplice. The criminal couldn't have done this alone." You have strong evidence for the existence of an accomplice even though you can't show or even identify him. But you know he was there. This kind of reasoning is called abduction, or inference to the best explanation.

DAVID: Very good, Sophie. Those philosophy courses aren't a waste of time, after all.

OSCAR: Now who's jumping to conclusions? If I'm not mistaken, this sort of reasoning was also used to demonstrate the existence of phlogiston, caloric fluid, astrology, and a lot of other bull—

SOPHIE: Now that's hardly a fair objection, Oscar. A method of reasoning doesn't have to be infallible to be legitimate. The theory of phlogiston was a reasonable one, given the state of knowledge at the time. After all, when you burn a heavy log you end up with a fairly light pile of ashes. It's not unreasonable to think that something that was in the log was liberated during the burning. In fact, that *is* what happens, but now we know that what is liberated isn't phlogiston.

OSCAR: Then it's possible that any so-called proof of the existence of God could turn out to be wrong, when we know more. In mathematics, the only way your proof can be wrong is if you make

an actual mistake. But in these other cases, you could do everything right and still come up with the wrong answer, not because you made a mistake but because information that you needed was missing. Do you want to base belief in God on something like that?

DAVID: I'm not claiming that belief in God should be based on these proofs *and nothing else*. I just think that a respectable case for the existence of God can be made.

SOPHIE: You're right, Oscar, to point out that when we step outside the domain of pure mathematics and logic, the nature of proof changes. Maybe the best David can hope for is a case for God's existence that makes sense of our best knowledge about the universe, even if it falls short of the kind of proof that we find in mathematics. Maybe we should be talking less about proof and more about evidence.

OSCAR: Is that distinction worth bothering with?

DAVID: I think it is. Proof is all or nothing; evidence has degrees. Scientists say that the universe is expanding—not because they can prove it the way you can prove a mathematical theorem but because they have plenty of evidence for the claim.

OSCAR: Hmm . . . so if evidence isn't proof, what is it?

DAVID: It's, well, anything that makes a belief more believable.

OSCAR: Is that supposed to make things clearer?

SOPHIE: Think of evidence as facts or information that make a certain claim more likely to be true or less surprising or more to be expected.

OSCAR: More to be expected than what?

SOPHIE: Than it would be if those facts or information weren't there. If your hair was found at the crime scene, that makes it more likely, or less unexpected, to suppose that you were there—even though it's possible that the hair got there in some other way. So your hair is evidence, not proof, that you were there.

OSCAR: A prosecuting attorney would call it proof.

SOPHIE: Yes, but in law they're talking about proof beyond a reasonable doubt, not mathematical proof. Proof beyond a reasonable

doubt is just another way of talking about enough evidence to convince a reasonable person.

OSCAR: Okay, that's fine. I still think it's more than David will be able to muster.

DAVID: I accept the challenge. But while we were talking about proof and evidence it occurred to me that despite Sophie's persuasive argument about unicorns and leprechauns, it's not always impossible to show that something *doesn't* exist.

OSCAR: So now you're angling to shift the burden back on me to prove that God doesn't exist? How am I supposed to do that?

DAVID: One way to prove that a thing doesn't exist is to prove that it *couldn't* exist. If you can do that, you don't have to go around looking for it and failing to find it.

SOPHIE: That may be so, but atheists might not agree among themselves that God couldn't exist, even though they agree that he doesn't. So as far as the burden of proof is concerned, the atheist can't be required to prove that God couldn't exist. It's not part of the atheist's "creed," so to speak. Maybe we could distinguish between strong atheism—the belief that it's impossible for God to exist—and moderate atheism—the belief that God could exist but doesn't.

OSCAR: Is there a weak atheism?

SOPHIE: I think that this would be the ground occupied by the agnostic, who says we are not in a position to know whether God exists or not. Some theists regard agnosticism as a form of atheism, since agnostics aren't *believers*, but some atheists find it too, well, weak.

DAVID: Which kind of atheist are you, Oscar?

OSCAR: I'm not an agnostic. I think agnosticism is a cop out. That is, I think the very admission that we are not in a position to know that God exists is a good argument for the claim that he doesn't. After all, I'm not an agnostic about unicorns either, as Sophie was saying before. I think the whole burden-of-proof question takes agnosticism off the table. As for whether I'm a strong or moderate atheist, I'll have to think about that. Meanwhile, I'll see what you have to say. Make my day, David.

Chapter 2

Nothing Comes from Nothing

Sophie, having won the second game, suggests that they go for coffee. As they cross the campus, the discussion continues.

DAVID: I guess my strongest instinct about this is that the universe had to come from somewhere. The Latin phrase *ex nihilo nihil fit* states a truth that I can't find any way to deny or even doubt.

OSCAR: Translation, please.

SOPHIE: Nothing comes from nothing.

OSCAR: Suitable for a bumper sticker. I don't quite see how you get from there to God.

DAVID: Think of the big bang theory, which most physicists accept these days. It says that at some point in the past, maybe about fourteen billion years ago, the entire universe originated in a massive explosion, and we are living in the midst of it or its aftermath. But the big bang theory doesn't really account for that original . . . *something* that exploded.

OSCAR: I think the main idea is that it started with a singularity, which is a sort of random fluctuation in the quantum vacuum. So yes, it does account for it.

DAVID: The point is that something had to cause the quantum vacuum and the laws about singularities to exist, and that's where it makes sense to consider the possibility that the big bang itself was God's initial creative act. It shows that there needn't be any real conflict between science and religion.

OSCAR: That's all very moving but not very convincing. For one thing, even if one grants that the argument proves the existence of a god—which I don't—it doesn't prove that that god still exists. Maybe he was destroyed in the explosion. Furthermore, it doesn't prove that he is a good god, even if he does still exist. And it doesn't prove—

SOPHIE: Hold it, Oscar. I think it's fair to let David make one case at a time. It's ridiculous to expect one argument to prove *everything* about God. If you have an objection, you should direct it at the argument, not at the absence of further arguments for other conclusions.

OSCAR: Fine. I was just making a point. I don't think the argument can stand on its own anyway. Let me try to paraphrase it: "Everything has to come from somewhere. The universe is something. So it had to come from somewhere. Or something. Or someone. And that would be God." Is that a fair summary, David?

DAVID: It's not exactly how I'd put it, but I think it captures the main point of the argument.

OSCAR: Well, it's illogical. If everything has to come from somewhere, and God exists, then God is something too. That means that God had to come from somewhere too. Where?

DAVID: God is eternal and uncaused. He has no beginning and no end. Therefore he didn't come from anywhere.

OSCAR: I thought you'd say something like that. But really what you've done is to make an exception to your first premise, which is that *everything* has to come from somewhere. But you see, "everything" means everything, so if God really does exist, you can't leave him out. So what your first premise really should be is "Everything has to come from somewhere, *except for eternal things*." From there, the refutation of your argument is obvious. If you can make an exception for God, why not just make an exception for the universe itself and drop the God hypothesis as unnecessary? Just call the universe itself an eternal thing and be done with it. No god need apply.

DAVID: That wouldn't explain, well, creation. I mean, the idea is that the universe had to be created, and that's why there must be a God. If you say that the universe is eternal, you're saying that it wasn't created at all; it just *is*.

OSCAR: Fine. If creation means an event that resulted in a universe coming into existence, and there wasn't previously a universe—and I don't know what else you might mean by “creation”—then there's no compelling reason to believe that creation ever happened. It's perfectly coherent to say that the universe, in some form or other, has just always been here. In fact, it's very strange that you insist that the universe “had to be created,” as if creation were something that you were in the habit of observing. Maybe creation, in the sense that you're using the word, is just nonsense. I mean, you're talking about creation of something from nothing, not just rearranging what was already there. Is there any evidence that this sort of thing ever occurred?

DAVID: You're right to say that I don't mean creation as a kind of rearrangement of materials, like creating a castle out of sand.

OSCAR: Exactly. You don't want to say that God created the universe out of some *ingredients*, like an omelet. You're saying that he created it out of nothing at all, by an act of will somehow—right?

DAVID: Yes.

OSCAR: What a concept! So if there was no universe before God created it, *where was he*? If God existed at all, didn't he have to exist somewhere? And if there was somewhere for him to exist, didn't a universe have to be there all along?

DAVID: I'm not going to pretend that I have all the answers to these questions, Oscar. Still, I think it's at least conceivable that God exists outside of space and time and that he created both of them.

OSCAR: Those are fine words, but I'm not sure that it really is conceivable. I don't know what “outside of space and time” even means, unless it's just a way of saying nowhere and never.

SOPHIE: What about something like the earth's gravity, Oscar. Does it exist in some specific place? And what about your thoughts? Do they occupy space?

OSCAR: Maybe gravity exists everywhere, which is easier to understand than something that exists nowhere. Besides, gravitational fields are extended in space in space around masses, and they have a center; they have a geometry. As for my thoughts, as far as I'm concerned they take place right here in my head.

SOPHIE: You have a *theory* about your thoughts, according to which they take place in your head, but it seems to me that there's nothing about your thoughts themselves that places them in your head or anywhere else. You don't actually experience them as having a location in space.

OSCAR: Sure I do. My thoughts are right in here, in this internal space from which I can look out through my eyes onto the external world. What's so mysterious about that?

SOPHIE: You've been seduced by spatial metaphors, for that's all they are. Everything in your head, every neuron and blood vessel, that very internal space, is part of what you are calling the external world. To say that your thoughts are internal in some sense and the rest of the world is somehow external to them may be a useful metaphor, but it doesn't carry any literal meaning. If thought is an important aspect of God's nature, we're not required to posit an external world in which to locate it, that's all.

OSCAR: I think we're getting sidetracked.

SOPHIE: Arguments don't always go in straight lines.

OSCAR: I'm willing to set aside the issue of where God was before he created anything, because the main point is that nothing requires me to believe in such a thing as creation at all.

SOPHIE: I'm still thinking about "Nothing comes from nothing."

OSCAR: What about it?

SOPHIE: If it's true that nothing comes from nothing and that something exists, then there could never have been nothing.

OSCAR: That's exactly what I've been saying.

DAVID: But science now tells us that the universe had a beginning. That's a better way to get at the argument. The actual scientific

evidence points to a beginning about 14 billion years ago. It's not just an assumption. So if it's true that the universe had a beginning and it's also true that nothing comes from nothing, then the universe had to come from something *else*, something other than the universe.

OSCAR: If the universe is just everything there is—and what else could it be?—then how could there even be something else? Anything at all that exists is part of the universe. It's crazy to talk about something other than everything there is.

SOPHIE: I'm thinking that the word "universe" may be playing tricks on us. If we *define* the universe as everything that exists, then yes, if God exists then he's part of the universe, by definition. But I don't think that really helps us to understand the arguments for or against God's existence; it just makes it harder to state them clearly.

DAVID: So what do you suggest? If not "universe" then what?

SOPHIE: I think we should talk about *nature* or the *natural order* or something like that.

OSCAR: How does that make anything clearer?

SOPHIE: If we think of nature as the sum total of physical things subject to laws, then at least we have some better idea of what we're talking about.

OSCAR: I don't see what difference the change in wording makes, but if you think it works better, I have no objection.

SOPHIE: I find it a little clearer to think of David's argument this way: Nothing comes from nothing. Nature began to exist. So nature had to come from something that wasn't nature.

DAVID: Yes! That's the argument that I was trying for. If we define "universe" as everything there is, then it's hard to talk about something creating it without also being part of it, but if we can talk about nature as a whole, it at least leaves open the possibility that there's something beyond nature.

OSCAR: So, when you say that nature began to exist, you're talking about the big bang?

DAVID: Right. The big bang is the scientific description of the beginning.

OSCAR: Then unless I'm misunderstanding the physics, the idea of the big bang is that the universe—I mean *nature*—began with the big bang, and the big bang itself proceeded from a singularity.

DAVID: I think that's right. The way it was explained to me is that in that original singularity the universe had zero dimensions but infinite density and temperature, which is hard to imagine. But one important point is that time itself can't be projected back before this singularity. There is no "before the singularity" as we think of it.

OSCAR: Very good. You've been paying attention in science classes. But you may recall that the singularity itself arises from nothing! So "Nothing comes from nothing" turns out to be wrong after all.

DAVID: Not so fast. By "nothing," you're talking about some sort of fluctuation in the quantum vacuum, and the quantum vacuum itself is defined in terms of a great abundance of potential energy.

OSCAR: A vacuum is a vacuum, and a vacuum is nothing.

SOPHIE: But the quantum vacuum has definite *properties* that are described by physics. Isn't it a bit strange to talk about the properties of nothing?

OSCAR: It may seem strange, but the history of science is filled with examples of ordinary concepts that have been replaced, and upgraded, by scientifically precise versions of those concepts. The quantum vacuum is just the scientific version of the old and vague concept of nothing.

SOPHIE: Old, yes; but vague? "Nothing" isn't a scientific concept so much as a logical one. It means the negation or absence of anything at all. If the quantum vacuum has specific properties describable by physics, then it isn't nothing; it's definitely something.

OSCAR: It's as close as the real world gets to nothing.

DAVID: Ah, but that's the point! It may be as close as the real world gets to nothing, but it *isn't* nothing. A little while ago, you insisted that "everything" means everything, so now I'm going to

insist that “nothing” means *nothing*, rather than nothing but the quantum vacuum. So if nature originated in a singularity in the quantum vacuum, it didn’t come from nothing. And that quantum vacuum itself, seething with potential energy, didn’t come from nothing either. The quantum vacuum is the beginning of nature, not the ultimate cause of it.

OSCAR: The beginning of nature? What’s that supposed to mean?

DAVID: The idea is supposed to be that a universe—all of nature—could have arisen spontaneously from a singularity, a fluctuation in the quantum vacuum. But where did anyone get this wild idea from? It’s certainly not self-evident that something like this could happen. I don’t pretend to understand the details, but they tell me that it’s all implied by Einstein’s general relativity theory and by quantum mechanics. But these theories represent some of our best understanding of the *laws of nature*. That is, the theories explain how a universe could arise from the quantum vacuum; and the actual observations of an expanding universe, of background radiation, and so forth, suggest that this is what happened. But if we’re going to talk about how the laws of nature explain how a universe can expand out of a singularity, then we’re already talking about a law-governed aspect of nature: the quantum vacuum. The laws of nature don’t explain themselves. They don’t tell us where they came from or where the quantum vacuum itself came from. The quantum vacuum is just the first form of the natural order that we can conceive of. That’s what it means to say that it’s the beginning of nature.

OSCAR: So you say they came from God, but I don’t see how that explains anything. You might as well say that the quantum vacuum was always there and then, at a particular moment in time, there was the singularity—a fluctuation—and we got a universe.

DAVID: I don’t think it even makes sense to talk about an infinite past.

OSCAR: Why not?

DAVID: If time extends back infinitely into the past, then an infinite amount of time had to elapse before the present moment could

occur. But that seems impossible. If we had to wait an eternity before getting to now, then now would never get here.

SOPHIE: That's interesting, but I'm not so sure it works the way you think. There doesn't seem to be any logical objection to saying that the future is infinite, but saying so doesn't mean that there's some moment in the future that's infinitely far away from the present in time. Every event, no matter how far in the future, is only a finite amount of time away from the present. As I see it, the same principle applies to the past. Even if the past is infinite, every moment of the past is only finitely removed in time from the present. There is no moment, in the past or in the future, that is *not* finitely removed in time from the present, regardless of whether the past and future are finite or infinite.

DAVID: Still, my argument is based on the contemporary theory that says that nature, including space and time, *did* begin to exist. I happen to think there are also philosophical problems with the idea of an infinite past, but mainly I'm talking about the scientific case for a beginning.

OSCAR: But that still doesn't deal with my question of how God is a better explanation than saying the quantum vacuum just *was*. It still seems to me that it's all a big question mark, which you're calling "God."

DAVID: Because the quantum vacuum, with the properties it's supposed to have, is still just nature, so it doesn't explain where nature comes from. God has the advantage of being something *other than nature*.

OSCAR: Supernatural, you mean?

DAVID: In a word, yes, although I know that word has a lot of spooky connotations. But I just mean it in the sense of something that is other than nature, and somehow beyond it.

SOPHIE: I'd like to go back to the original argument. Anything that begins to exist has a cause, right? We can talk about causes instead of "comes from."

DAVID: That's right. It's a First Cause argument. Anything that begins to exist has a cause. Nature began to exist. So nature has a

cause. Furthermore, the cause of nature must itself be uncaused, or else it would just be a part of nature.

OSCAR: I just don't see this as an argument for a personal God. At best it gives us the existence of *something* uncaused that caused nature to exist. And as I said before, that something is just a big question mark.

SOPHIE: You have a point, Oscar. The fact that philosophers haven't even been able to agree on a definition of causation doesn't make things any clearer.

OSCAR: Do philosophers ever agree on anything?

SOPHIE: It depends on who you talk to. But here's the issue. There are at least two different ways of thinking about causation. One is external, so to speak, and impersonal. We see things making things happen out there in the world. The wind causes a tree limb to break; a spark causes a fire; the heat in the oven causes the cake to rise. But there's also an internal sense of cause, which we experience directly when we *do* things—we directly cause things to happen. The internal sense is personal, because it's based on what we experience as persons.

OSCAR: Why does this matter? Some things are caused by wind and sparks and whatnot; some things are caused by people. So what?

SOPHIE: It's complicated. For one thing, it's an open question whether these two kinds of causation are fundamentally different. And there are some who insist that our basic concept of causation is the internal one. That is, we know what causation is because we know what it is to cause things. We know it from the inside, so to speak.

OSCAR: Why would they be fundamentally different?

SOPHIE: On one view, internal causation is just the same as the wind and sparks and so on—it feels different to us, but that's an illusion. The wind *makes* the tree limb break, and some microchemical events *make* me do the things I do. On another view, nothing makes me do the things I do. I choose them freely, which means I could *not* choose them.

OSCAR: Ah, the free will thing. Before we get enmeshed in that, how does it have anything to do with the God argument?

DAVID: I can answer that. If our basic understanding of causation is the second one, the so-called internal one, which is grounded in the experience of choosing, then that first uncaused cause can be understood as a *choice*, or an *act* of some kind, and not just an impersonal something. So if you think of nature as holding together by means of all these external causes, the uncaused cause of all of it is an internal cause, because that's the only other kind of cause there is. And as Sophie said, internal causes are *personal*. Persons are beings who cause things in this internal way. In fact, I prefer to call it "personal causation" just to avoid the whole spatial internal/external metaphor.

OSCAR: You're losing me. I get what it is for me, a person, to cause something. I cause the cue stick to hit the cue ball, and the cue ball to hit the nine ball into—well, maybe not this time. But anyway, my point is that I move the cue stick, striking the cue ball, and that's one cause. The cue ball hits the nine ball, and that's another. I don't see a huge difference between the two.

DAVID: Here's the difference. It's *up to you* whether or not to move the cue stick. Nothing makes you do it. But the cue stick makes the cue ball move, and the cue ball makes the nine ball move.

SOPHIE: I'd put it differently. I'd say that the effect of the cue stick on the cue ball and the effect of the cue ball on the nine ball are governed by laws: general principles that you can express mathematically. But there are no laws that say whether you will or won't move the cue stick.

OSCAR: No? Are you sure of that? Maybe we just don't know the laws, or they're too complicated to work out. When I move the cue stick, my brain and muscles are involved, and that's a lot of complexity, but when you break it down, it's still just plain old cause and effect going on in all of the cells. My cells follow the laws of biochemistry, but there are so many of them doing things at the same time that we don't see it as lawlike.

SOPHIE: That's a disputed point, Oscar. Absolutely, a lot of people believe just what you've said, but nobody can say that it's been

shown to be true. The idea that people are just biochemical machines has been around for a few centuries, but the idea that people are not mere machines is even older. Either way, we can't really say that we know what the fact of the matter is.

OSCAR: Seems to me that the burden of proof, once again, is on anyone who says that it isn't true. Why should anyone believe that the causation involved in personal actions is different from all other causation?

DAVID: Because we have a very powerful sense that the things we do are not *necessary*, or *made to happen*, the way other things are.

OSCAR: A sense? That's it? That's pretty flimsy. Science has busted a lot of intuitions about things in the past; there's no reason to think it won't bust this one too.

DAVID: I don't want to get sidetracked into that question anymore than we already have. But I'm glad Sophie brought up the point about external causes being subject to laws. Remember, the argument that I'm offering is that nature began to exist, so it must have been caused by something that is both personal and uncaused. But you doubted the "personal" part, saying it could just be *something* uncaused. My answer to that is: those mathematical causal laws, which we call the laws of nature, are themselves part of nature. They are part of what began when nature began. To think otherwise is to suppose that the laws of nature could have existed before there was anything for them to be laws of!

OSCAR: I'm not so sure about that, but go on. I can see you're getting excited.

DAVID: Well, if the mathematical laws of nature—the principles of external causation—was part of what had to have been caused to exist, then it follows that the cause that caused them was the other kind of cause: personal causation.

OSCAR: The cause that caused them?

DAVID: Yes. You know what I mean. The causal laws of nature are part of what is being explained, so they can't be in the explanation.

So personal causation is all that's left, and that means that the uncaused cause isn't just an uncaused *something*; it's a person of some sort.

OSCAR: That's asking this special kind of internal or personal causation to bear an awful lot of weight in your argument. I don't think you've given anywhere near strong enough reasons to think that personal causation actually exists in a way that isn't just reducible to so-called external causation.

SOPHIE: If you're right, Oscar, then David's whole argument fails. His argument is that anything that begins to exist has a cause, and now that we've talked about it, he's including external causation itself in what began to exist. If external causation is the only kind of causation there is, then the causal order itself couldn't be said to be caused.

OSCAR: The causal order?

SOPHIE: The causal order, or natural order—nature itself as a causal system. If the whole system began to exist, and if there's no personal causation that isn't reducible to external causation, then that's the end of the line. You have to reject David's first premise—that anything that begins to exist has a cause. You have to reject it because causes are part of what began to exist.

OSCAR: I'm okay with that. I'm fine with saying that the causal order, as you call it, is itself uncaused. It makes more sense to me than saying that it had to be caused by a special and different kind of cause. That sounds like something invented just to make the argument work.

SOPHIE: In fairness to David's argument, you can't really call personal causation an ad hoc hypothesis, since it's based on direct experience and isn't just tied to the existence of God. An atheist might well believe that personal causation isn't reducible to external causation.

OSCAR: *This* atheist doesn't believe it!

SOPHIE: That's okay, but if you think it through, and personal causes are completely reducible to natural, or external, causes, there are some extreme implications. One of them is that all of our reasoning, all our sense-making, is ultimately robotic. We arrive at our

beliefs as a result of the biochemical jiggling of billions of neurons, and that's all.

OSCAR: Maybe that's just the way it is.

DAVID: If you really want to insist that personal causes are just a special kind of natural causes, then I obviously can't sell you on the idea that if the natural order had a non-natural cause, it must have been a personal cause. But that doesn't undermine the point that it had a non-natural cause. You need to accept the distinction between personal and natural causes to get from there to a personal creator, I think. But even without that, the argument to some kind of supernatural cause of nature stands. Sophie said that if you reject the distinctness of personal causation my whole argument fails. I don't think it does. It leaves open the possibility that there is some other mysterious kind of cause, neither natural and lawlike nor personal, that brought the natural order into existence. But to me, that just looks like a desperate attempt to avoid at any cost the possibility of a personal creator. That's about as far as I can take this argument. I have others, but they'll have to wait till later. I have a class to go to.

Chapter 3

A Necessary Being

Coffees in hand, the three go to a table in a remote corner of the cafeteria. David has a thoughtful expression on his face.

SOPHIE: So what's the next move, David?

OSCAR: Maybe it's your move, Sophie. You haven't really stuck your neck out yet. Which side are you on anyway?

SOPHIE: I'm not sure I'm on any side that I've heard so far. At least, I haven't heard a position that I would really go to bat for.

OSCAR: Typically evasive. You're just trying to avoid taking a stand, which means you're probably a covert theist.

DAVID: Your turn on the rack, Sophie.

SOPHIE: Listen, you guys, I like to work things out in an orderly manner. David started out with a fairly straightforward argument for the existence of God, but as we talked about it, it took on more subtlety. I don't think we've covered the terrain yet, by a long shot.

OSCAR: What's left to cover?

SOPHIE: There's a famous attempt to prove the existence of God from the very concept of God.

OSCAR: How is that supposed to work?

DAVID: You'll have to do the talking on this one, Sophie. I know about this argument, but it's not one that I'd ever use.

SOPHIE: Okay, the argument starts with a definition of God. The idea is that you can't really do much in the way of proving unless you

have a precise conception of the entity whose existence you want to prove.

OSCAR: I would have said that myself, except I didn't really think that the pious would dare to define God.

SOPHIE: Maybe you'll like this definition: God is the most perfect conceivable being. Notice that this is much stronger than defining God as the most perfect actual being. This definition says that you can't even conceive of a more perfect being.

OSCAR: Okay, but what's "perfect"? That's a pretty vague term to use in a supposedly precise definition. Perfect according to whom?

SOPHIE: It's easier to approach it from the negative side. Imperfections are intuitively more understandable than perfections. An imperfection is any shortcoming, any way in which a thing fails to measure up to what it could conceivably be. So, for example, blindness is an imperfection because not being able to see falls short of being able to see. Mortality is an imperfection—

OSCAR: Not so fast. We consider blindness an imperfection because we have eyes that are supposed to enable us to see, and we're better off being able to see than being blind. But is blindness an imperfection in a bat or a mole? As for mortality being an imperfection, we have to ask what the world would be like if people never died, especially if they continued having children. And if they didn't continue having children, they'd be infertile, and isn't *that* an imperfection then? But a world populated with fertile immortals would soon become very, very crowded—unsustainable, in fact—and that sounds like an imperfection. So I still think you're hiding a lot of assumptions in the concepts of perfect and imperfect.

SOPHIE: So you don't think the idea of perfection even gets off the ground?

OSCAR: I think it's only meaningful relative to certain goals or designs. A dull knife is imperfect because knives need to be sharp to cut things. It's *designed* to cut things. The blindness of a mole isn't an imperfection, because in its natural habitat it gets along better without depending on vision.

SOPHIE: Does this mean that to talk about human imperfections we have to talk about what they were designed for?

DAVID: I have another argument, if we're going in that direction.

OSCAR: Let's set that aside for now, or we'll never get to hear the rest of Sophie's mysterious argument. But yes, I want to go on record as saying that I don't think perfection and imperfection mean anything apart from the purposes or designs of things. So unless you're going to tell me who designed God and for what purpose, I don't think we're going to get anywhere.

SOPHIE: Fair enough. I'll go ahead with the argument, and we'll see where we end up.

OSCAR: Fine. So, you were saying that God is the being with the fewest conceivable imperfections, is that it?

SOPHIE: Right. And that immediately tells you that God must have no imperfections, since if he had even one, we would be able to conceive of a god who didn't have that particular imperfection. For God to be the most perfect conceivable being, he can have no imperfections at all.

If something doesn't exist, that in itself is a kind of defect, or shortcoming, as long as we could conceive of its existing. If the most perfect conceivable being didn't exist, we'd be able to conceive of a more perfect being, namely one who does exist. It follows that the most perfect conceivable being must actually exist.

OSCAR: Oh good grief. Are you serious? You seem to be saying that if we define God in the right way, then he just has to exist. Is that really the argument? Are you really claiming that God exists *by definition*?

SOPHIE: You could put it that way. I don't think it's any worse than saying that four-sided triangles or things that are black and white all over *don't* exist by definition. What it comes down to is this: Existence is essential to the very idea of an all-perfect being. And this idea is itself a part of the evolution of human thinking about God. It's a great step beyond just thinking of God as mighty or fearsome.

OSCAR: It may be a more sophisticated idea, but I don't think it goes anywhere at all. It's the sort of thing that gives philosophy a bad name. Why, you just stick existence in there as if it were just one more property a thing might have. You say that if a thing doesn't exist, that's an imperfection. But that's just silly. If something is imperfect—assuming for the moment that you even have an objective concept of perfection—then it's imperfect because of the properties it has or the properties it lacks. If it doesn't exist, it's not imperfect; it just doesn't have any properties at all.

SOPHIE: If you're willing to grant that something can be imperfect due to the properties it lacks, I don't see why you object to the claim that for God to lack existence is an imperfection.

OSCAR: It's a bad idea on a couple of levels. For one thing, getting back to the perfection problem again, blindness in a human being is an imperfection because human beings are supposed to see with their eyes—not by definition but by evolutionary design. But we can't just claim that nonexistence is an imperfection in God because God is supposed to exist! Existence isn't really a property at all. If something exists, then it has properties and we can talk about its imperfections; otherwise, forget it.

SOPHIE: Don't you think that when something ceases to exist, it loses something?

OSCAR: No, not really. When something ceases to exist, it doesn't lose anything; it's just lost, gone. We lose *it*. When a person dies, for example, we say, speaking loosely, that he has lost his life. That's okay because we all understand that losing your life is not really like losing your shoe; it's just a manner of speaking. When you lose your shoe, you're still around to bear the loss. When you lose your life, you're not. What we call "losing your life" really means that you cease to exist. So you haven't lost anything, since you're not around to bear the loss. It's the rest of us who have lost you.

SOPHIE: So after I die I don't have the property of being dead?

OSCAR: That's right. You don't have any properties, because you're not there. When we say "Elvis is dead," it's just a way of

saying that the world no longer has Elvis in it. It's definitely not a way of saying that Elvis acquired an imperfection.

SOPHIE: But isn't it perfectly natural to talk about the properties of nonexistent beings? Isn't it okay to say that Santa Claus is jolly? Wasn't Huck Finn a runaway?

OSCAR: Maybe when we say that Santa is jolly what we really mean is that *if* Santa existed, he would be jolly. And *if* God existed, he would be perfect. If you want to stipulate that the only God worth talking about is a perfect one, I have no problem with that, other than the problems I've already mentioned about perfection. Where I draw the line, however, is when you add existence itself to the list of perfections, and nonexistence to the list of imperfections. If we allow this, a perfect *anything* can be proved to exist. For example, a perfect unicorn—let's see, it has to have four legs; it should look just like a horse; a big horn should be sticking out of its head. And it has to exist! If it didn't exist, it would be a perfect unicorn, because I'd be able to conceive of one that did exist.

DAVID: I hate to admit it, Sophie, but I have to agree with Oscar on this one. It really does seem that you could prove the existence of a perfect anything with this argument.

SOPHIE: It's not that simple. Perfection is not part of the definition of a unicorn—

OSCAR: But it's part of the definition of a *perfect* unicorn.

SOPHIE: As I started to say, the central idea is that perfection is essential to this concept of God, but not of unicorns.

OSCAR: I know, I know. But you said yourself, Sophie, that people have had other conceptions of God, and they haven't always been of a perfect being. So let's say that I am now upgrading the traditional conception of a unicorn by conceiving of the most perfect conceivable unicorn. Now that I have conceived of it, by your reasoning it must exist.

SOPHIE: As I see it, when you talk about the most perfect conceivable unicorn, you're talking about what would be a perfect specimen of a unicorn, if unicorns existed at all. But when you talk about God as the most perfect conceivable being, you're not saying what

God would be like if beings existed at all. The idea is not that God is the most perfect conceivable member of some general category of things; it's a conception of God according to which *nothing of any sort whatever* can be conceived to be more perfect. So the parallel to the unicorn example is only superficial.

OSCAR: I still don't trust this argument. It just doesn't seem right to build existence into the definition of a thing, even if you do it indirectly.

SOPHIE: Existence isn't in the definition. It's a *consequence* of the definition. Similarly, nonexistence isn't part of the definition of a four-sided triangle; it's a consequence of the definition.

OSCAR: That's different. The definition of a four-sided triangle is incoherent, which means that nothing could possibly satisfy it. But there's nothing in any reasonable definition of perfection that requires that something must exist to satisfy it. To say that if God didn't exist he'd be less perfect than we could conceive him to be is the false move in this argument. As far as I'm concerned, you can adjust your definitions of God and perfection as much as you want, but it's still all "on paper," if you know what I mean. It remains an open question whether anything exists that satisfies those definitions.

SOPHIE: What about you, David? What do you think?

DAVID: As a believer, of course I'm tempted to go along with any argument that tries to show that God exists, but this one seems very tricky. I don't want to accept an argument just because I like where it ends up. I like the idea of making perfection part of the concept of God, because it implies something more than a creator; it also implies moral perfection. But for showing that God exists, it just isn't the way I tend to think about it.

SOPHIE: I wanted to give you a break from Oscar's badgering. The thing I find intriguing about this argument is that it contains the seed of a very interesting idea: that God would create a universe in which the only clue to his existence would be planted in our own minds. It's as if the very fact that people have developed this idea about God points to his existence.

OSCAR: It may be interesting, but for the purpose of convincing a skeptic, I think you should try something else.

DAVID: I agree with you on that, Oscar.

SOPHIE: Wait a minute. There's more to say about necessity and contingency.

OSCAR: Sure; leave no stone unturned.

DAVID: I think you're going to get into the argument from contingent beings. I think it's a powerful argument, but tricky to explain.

SOPHIE: Yes, that's where I was headed. I'm not sure what I think about the argument, but it's interesting.

OSCAR: Everything's interesting with you, Sophie. So let's hear this one. What's a contingent being?

DAVID: It's something that might or might not exist. It doesn't have to exist.

OSCAR: Isn't everything a contingent being then? I mean, anything you could point to could be imagined not to exist.

SOPHIE: There's another sense of the word "contingent," meaning *dependent*. When we say the outing will be contingent upon the weather, we mean it might or might not occur, depending on the weather.

OSCAR: So my existence depends upon my parents' existence, and so on. It sounds like we're back to the First Cause Argument.

SOPHIE: Not exactly. Maybe it'll make it clearer if we switch levels for a minute and talk about *facts*.

OSCAR: What do you mean by "switch levels"?

SOPHIE: Instead of talking about this or that thing being a contingent being, we'll talk about its existence being a contingent fact. A fact is just a way the world is. It's a fact that I exist, and since I'm a contingent being, it's a contingent fact that I exist.

OSCAR: Okay, I guess. It sounds like a pointless complication, but go on.

SOPHIE: The next step is the principle that for every contingent fact, there's some further fact or facts that explain it.

OSCAR: What does that mean?

SOPHIE: It means that the fact that you exist is explained by the fact that your parents existed and the fact that they chose to—

OSCAR: Right. We know what they chose to do. So this is the dependency part of the idea of contingency?

DAVID: That's right. The world is full of contingent beings, and for each one of them there are some facts that explain why it exists.

OSCAR: Let's see if I'm getting this. The fact that I have blue eyes is contingent, because I could have had brown eyes. That fact is explained by some facts about my genes, and those facts are explained by some other facts about my parents, and so on.

DAVID: Exactly. And you can see what's coming. If every contingent fact depends upon some other contingent facts, then there's an infinite regress. Every fact would depend upon infinitely many other facts. There would be no end to it.

OSCAR: Why is this a problem?

SOPHIE: Maybe nothing is wrong with it, but let's take it step by step. Think about this: If in order to *know* some fact you have to know the facts that it depends on, then it would be a problem if all facts are contingent. It would mean that to know anything you have to know infinitely many things.

DAVID: I can see why that would be a problem, since it would seem to imply that we can't know anything. But maybe in order to know a fact we don't have to know everything that fact depends on. I know it's a fact that the sun is shining today, but I'm sure that fact depends on a lot of things that I don't have a clue about.

OSCAR: David is right, Sophie. We don't need to know *why* the sun is shining to know that it *is* shining. So where were you going with this?

SOPHIE: I was leading up to the possibility that there are facts that aren't contingent.

OSCAR: What is that supposed to mean?

SOPHIE: It means that some facts are *necessarily* so, not just contingently so.

OSCAR: You'll need to give an example or three.

SOPHIE: It's a fact that the ratio of the circumference of a circle to its diameter is pi, which is an irrational number.

OSCAR: Yes, I'm aware of that. So what?

SOPHIE: Is it a contingent fact?

OSCAR: You mean, could it be different? Well, I think there have been people who thought it was different, so I guess so.

SOPHIE: But when you analyze their thinking, it could be shown to have some mistake. The ratio of circumference to diameter of a circle is pi in every possible world.

OSCAR: "Every possible world"? More philosophical jargon.

SOPHIE: Sorry, I guess it is. But it's simple enough. It means we can't coherently imagine a world where the circumference of a circle divided by its diameter isn't pi. If we think we've imagined a world like that, we've made some mistake in our imagining. So it's a necessary fact or, if you prefer, a necessary truth. And that's just one example. Most philosophers and mathematicians would insist that all of the truths of mathematics are like that. They are necessary, not contingent.

OSCAR: Okay, but I don't really see the relevance of pure mathematics to the existence of God. Do you have another example?

SOPHIE: There are different kinds of necessary truths. Some are things that are true by definition, such as "No triangle has four sides." Others are true because of their logical form, like "Either that animal is a dog or it isn't." Here's a different kind of example, from Greek philosophy: "Anything extended in space could, in principle, be subdivided." It doesn't appear to be true by definition or as a result of its logical form. It's *metaphysically* necessary—or that's how some philosophers would describe it.

OSCAR: I'm not impressed. Isn't that just a fancy way of saying that anything can be cut in half?

SOPHIE: Not exactly. Cutting is a physical operation, and Greeks understood that there are physical limits to how far you can take such operations. Those limits depend upon details about the tools you use and so forth. But even if you consider something that you can't possibly cut in half—such as an electron—if it has dimensions to begin with, then you can at least conceive of its being subdivided into parts that have dimensions. Subdividing, as I'm using the word, has nothing to do with any physical process. It's just a way of referring to different parts of something. I can talk about this half or that half of a loaf of bread without actually cutting it.

OSCAR: Remind me why this is important.

SOPHIE: It's an example of a fact that isn't contingent.

OSCAR: And that means I can't even conceive of it not being true. I'll accept that for now. Keep going.

SOPHIE: Let's go back to facts about the existence of things.

DAVID: At last! This is where I was going to begin.

OSCAR: Okay, David, you take a turn. Maybe you can show what these necessary truths have to do with the existence of God, because right now I'm not seeing any connection.

DAVID: I think I can. In fact, you said yourself just a few minutes ago that it seems to you that pretty much everything that exists is a contingent being, in the sense that you can easily conceive of it not existing, right?

OSCAR: That's right. I can't think of anything that exists, with the possible exception of the mathematical things like pi that Sophie likes so much to bring up, that exists "in every possible world"—if I can use some of her slang.

DAVID: If the existence of each individual thing in the universe is a contingent fact, it's hard to see how the existence of the universe itself could be other than a contingent fact. I mean, if you take all those contingent facts and hook them together into a single *universal*

fact, it would still be contingent. If you prefer being-talk to fact-talk, then it's like this: If everything in the universe is a contingent being, then the universe must be a contingent being.

OSCAR: Fine. I still don't see where this is getting us anywhere.

DAVID: This is the point where we go back to the principle that every contingent fact is explained by some other fact or facts. The fact is that the universe that we live in exists. It consists of all the things that are in it, and not some other things. This "universal fact" is a contingent fact, so it must be explained by some further fact. That further fact could either be contingent or necessary. If it's contingent, we just push the question back, but we don't answer it, because that further fact would require an explanation. So if an infinite regress is to be avoided, there must be some necessary fact that explains the universal fact. That is, there must be a necessary being whose existence explains the existence of the universe itself.

OSCAR: Let me guess. God?

DAVID: Bravo! The man wins a coffee.

SOPHIE: Well done, David. So the idea comes down to this: The universe exists, but it doesn't explain its own existence. So something else must explain it, and in order for that something else to work, it must exist necessarily, so that in some sense it *does* explain its own existence, as well as the existence of everything else.

DAVID: That's it in a nutshell, and to me this is the strongest case for God's existence.

OSCAR: It's interesting anyway, and the best I've heard so far. There's one thing that bothers me, though.

DAVID: That you can't think of a refutation?

OSCAR: Slow down; I'm not finished yet. I want to know where we get this neat division of facts into contingent and necessary. Who says that all facts fall into one of these two categories?

SOPHIE: What's the third alternative? Either a fact can be conceived to be otherwise or it can't. There's no middle position.

OSCAR: I can see that, but I'm thinking about the two senses of "contingent" that you mentioned before. There is the sense of "contingent" as being able to be conceived as otherwise and there's the sense of "contingent" as dependent on something else. The latter sense of dependency seems to be involved in this idea that every contingent fact is explained by some other fact. And that's what's bothering me. I don't see why every fact that could be conceived to be otherwise has to have an explanation.

SOPHIE: A necessary fact is one that can't even be conceived to be otherwise, so it requires no further explanation. It's as self-explanatory as anything can be. If you try to imagine it being false, you trip up and make some logical mistake. But for any contingent fact, you can always ask: Why is it this way rather than some other way? Why does the Earth have one moon instead of two? Why are there planets at all? These questions are about contingent facts, and the idea is that all such questions have answers.

OSCAR: But *whose* idea is that? Who says they all have answers?

SOPHIE: It's a very basic principle, called the Principle of Sufficient Reason. And that principle is simply the claim that there is a *reason* for the truth of every fact, either built into the fact itself, as in necessary truths, or in some other fact, as in contingent facts.

OSCAR: Okay, good; now we have a name for it. But here's what bothers me. This principle seems to be saying that the universe must be set up so that it makes sense. Everything has a reason, self-evident or otherwise. That strikes me as arrogant, frankly.

DAVID: What's arrogant about it, Oscar? To me it just seems like common sense.

OSCAR: I don't think we can just assume that everything is so nicely wrapped. Why couldn't there be such things as brute facts, facts that can be conceived to be different but aren't explained by any other facts? They just are what they are, with no explanation at all.

SOPHIE: I see what you're getting at. So maybe something like the speed of light would be a brute fact. It just is what it is, which is about 186,000 miles per second, but it isn't explained by any further fact.

OSCAR: Exactly. All the basic physical constants would be brute facts like that: the speed of light, the gravitational constant, and so on.

DAVID: I don't see why you think things like the physical constants have no explanation. Maybe we just haven't discovered their explanation yet.

SOPHIE: No, I think I see Oscar's point. It's certainly possible that the speed of light will turn out to have an explanation in terms of something more fundamental, but that something will have its own brute fact constant. Isn't that it, Oscar?

OSCAR: Yep. I was thinking that even if scientists finally come up with the grand theory of everything that explains all the physical constants that we know about now, that theory is going to have its own deep constants that are just . . . given. I can't see how science could get past that. At some point, if and when physics reaches the bottom level, the most fundamental possible level of description, there will still have to be brute facts in it.

DAVID: What if there is no bottom level?

OSCAR: Aren't you the same person who said we can't tolerate an infinite regress? Well, I'll humor you and suppose there's no bottom level of description. Maybe there are always deeper facts that explain whatever look like brute facts at the moment. Maybe there's no end to it. It would be like an infinitely deep stack of explanations. Even so, the particulars of that stack would be contingent, in that we could conceive of it being a different stack of explanations. So the fact that it's one stack rather than another would still be a brute fact.

SOPHIE: Spoken like a philosopher.

OSCAR: Is that a compliment? Anyway, my whole point comes down to this: I don't think we can just help ourselves to the Principle of Sufficient Reason. If there are any brute facts, the Principle is just wrong.

DAVID: You're certainly right to say that if there are any brute facts, the Principle of Sufficient Reason is wrong, since the whole point of the Principle is that there are no brute facts. So it comes down to this: Either God exists or the universe is ultimately inexplicable; it has brute facts that have no explanation at all.

OSCAR: That sums it up. And there's nothing to compel me to take one side or the other in that dilemma.

DAVID: That's already a step away from atheism to agnosticism. The atheist claims outright that God doesn't exist, which means that the universe *must* be inexplicable. But is the universe ultimately inexplicable? Could it be that way?

OSCAR: I don't think we're in a position to know, really. If that's agnosticism, so be it. All I know is that the universe *might* be inexplicable, so there's nothing pushing me to believe in a so-called necessary being. In fact, from where I'm sitting, the reality of brute facts seems more believable than the existence of a creator who's a necessary being.

DAVID: I just don't see how a supposedly rational line of thinking could lead to the conclusion that there's no rational reason why there is a universe at all. You started out saying that belief in God is irrational, but now it seems that the universe itself is irrational if God doesn't exist.

OSCAR: Not so fast, David. There's no requirement for a rational thinker—which I take pride in being—to believe in an ultimately rational universe. And be careful how you use “rational” here. When we talk about a rational mind or rational thinker, we're talking about a way of thinking or reasoning. When we talk about a rational universe, we're not talking about how the universe thinks. We're talking about how understandable it is to a rational mind.

DAVID: I see that. It's just a manner of speaking to call the universe rational or not. It's not a way of saying that the universe thinks.

OSCAR: Maybe so, but when you then say that the universe might be *irrational*, it can be misleading. An irrational thinker is someone who thinks incorrectly. What's an irrational universe?

DAVID: It's a universe that doesn't make sense to a rational mind. And a universe with brute facts is like that; it has these loose ends, such as the physical constants, that can't be understood but just have to be accepted as givens.

OSCAR: Getting back to my point, a rational mind doesn't demand that everything about the universe be understandable. It's

perfectly reasonable to suppose that the kind of sense we can make of the universe is—how should I put it?—*local* instead of ultimate. Our kind of rationality is the outcome of our evolutionary history, in the course of which it has paid off to try to understand things. But the kinds of things we're best at understanding are the things in the world around us that favor or threaten our survival, and that's just what you'd expect. When it comes to matters of the ultimate origin or nature of the whole universe, it's not exactly shocking that our understanding might fail. I think the Principle of Sufficient Reason expresses a wish, more than anything else; a wish that the whole universe should make the kind of sense that the bit of it that we encounter from day to day makes. But wishing doesn't make it so. Maybe "arrogant" was the wrong word, but it's still wishful thinking to suppose that God must exist because the universe would be inexplicable if he didn't.

SOPHIE: The argument has taken an interesting turn. It really comes down to one's basic orientation to the world. If Oscar is right, the universe is ultimately indifferent to our sense of order and intelligibility. In fact, it's worse than indifferent; it's *foreign* to reason, and we are therefore foreign to it. Human reason is itself a fluke. The Principle of Sufficient Reason is a pretty deeply intuitive principle, according to which the universe *should* make sense. If it is false, then it wouldn't be far wrong to say that our kind of intelligence doesn't *belong* in this universe.

OSCAR: That's very poetic, Sophie, but I think you may be overstating the case somewhat. It could be that there's enough sense and order in the universe to give our minds something to hang onto even if it is ultimately inexplicable. Besides, shouldn't we ask about the Principle of Sufficient Reason itself? If it is true, what sort of truth is it: necessary or contingent?

SOPHIE: Hmm, I think the whole point of the Principle is that it should be recognized as a necessary truth about what might be called the logical structure of the universe.

OSCAR: So it's a necessary truth? It doesn't seem so to me. After all, David's dilemma concedes that it might be false. Either God exists, or there are brute facts and the Principle of Sufficient Reason is false.

The dilemma treats it as an open question, as if it's really possible that there are brute facts.

DAVID: Why is that a problem?

OSCAR: If the Principle of Reason is false, there are brute facts, right?

DAVID: Right.

OSCAR: And it's at least conceivable that there are brute facts, right? I mean, we've all been talking as if there might be.

DAVID: Okay, right.

OSCAR: Then the Principle of Sufficient Reason can't be a necessary truth. If it were one, there would be no possible world in which there are brute facts, to use Sophie's lingo again. So if it's possible that there are brute facts, the Principle of Sufficient Reason itself must be contingent!

SOPHIE: And if it's contingent, then according to itself there must be some further fact that explains it. Very good, Oscar.

OSCAR: It is pretty good, isn't it? The Principle of Sufficient Reason presupposes that every truth is either necessary or contingent, but the Principle itself is neither. That means it isn't true at all.

SOPHIE: That's a very clever argument, Oscar. But it's possible that we just don't know whether the Principle of Sufficient Reason is a necessary truth or not. You're right; we've been talking as if it's up for grabs, as if we can imagine it being false. Maybe we just haven't thought it through, though. There's more to conceiving of it being false than just saying it might be. The fact that David's argument treats it as an open question doesn't mean that it's contingent. There can be necessary truths that we're uncertain about. What I'm getting from all this is a realization that the question about the Principle of Sufficient Reason is just as deep as the question of God's existence. That makes it more difficult to use it as a ladder to get to the existence of God.

DAVID: Fair enough. Even though the argument isn't as decisive as I thought, this discussion somehow clarifies my faith for me. It's as if at some level I must choose how to relate to the world: either

as a place where my mind—my *reason*—belongs or as a place where it ultimately doesn't belong or only locally belongs. I find that I just can't accept the latter view.

OSCAR: Inability to accept something isn't a reason for thinking it's false. And you know, even if your argument for the existence of a necessary being were successful, it still wouldn't show that this being is personal. It could be some sort of force.

SOPHIE: I'm not so sure about that. It seems to me that impersonal forces are exactly the sorts of things that are described by the laws of nature, so you're talking about more of what we're calling the natural order again rather than about something external to nature that causes it all to exist. I think an impersonal force is just the wrong kind of thing to consider as a necessary being, because any force at all is going to have contingent details, constants of some sort. But I'm still turning this whole argument over in my mind. I want to think about what happens to it if we say the Principle of Sufficient Reason is false.

DAVID: That's easy. The whole contingency argument falls apart.

SOPHIE: Maybe. But let's take a fresh look at the Principle of Sufficient Reason itself. It says that for every contingent fact there is something that explains it. And this whole contingency argument comes down to the fact that the contingent universe, in all its detail, doesn't explain itself, so there must be a necessary being that does explain it, and that's God.

DAVID: That's it in a nutshell.

SOPHIE: Okay, first I want to talk about what counts as an explanation. What does it even mean to say that one fact explains another?

DAVID: That's not so hard to understand. For example, the fact that it rained last night explains the fact that the roads were wet this morning.

SOPHIE: That's one kind of explanation. The fact that water expands when it freezes explains the fact that the sealed bottle of water that I left in my freezer was cracked when I remembered to

take it out. Explanations like that appeal to the natural causal properties of things. So we can call them natural explanations. But just as there are two kinds of causes, there are two kinds of explanations.

DAVID: What's the other kind then?

SOPHIE: If I say that the fact that you're carrying an umbrella is explained by the fact that you believe it's going to rain today, that's a different kind of explanation.

DAVID: What's different about it, apart from the fact that it involves beliefs?

SOPHIE: In the first case, the cracked bottle in the freezer, there are laws involved. The behavior of water at various temperatures is described by laws. But there's no law saying that if you think it's going to rain, you'll carry an umbrella.

OSCAR: That doesn't make it a different kind of explanation; it just makes it more complicated. If David believes it's going to rain, and he wants to stay dry, and he has an umbrella, and he has no reason not to carry it, and so on, then he'll carry it. Same as the water in the freezer, but with more factors involved.

SOPHIE: I don't think it's the same at all. The freezing of the water makes the expansion inevitable. That's the nature of physical causation. But all of the things you mentioned don't make it inevitable that David will carry his umbrella. They make it likely; they make it reasonable; they make it understandable; but they don't make it inevitable. There's something fundamentally different about the two kinds of explanations, the natural and the . . . rational, if I can use that word. The rational explanation makes an action or a choice intelligible without showing that it's an inevitable lawlike consequence of something else. The rational explanation is also personal, because persons are the kinds of beings who act because of reasons, not just causes. And come to think of it, the natural explanation undercuts any rational one.

OSCAR: What do you mean by that?

SOPHIE: Suppose you tell me that you believe that you are being stalked. I ask you your reasons and you tell me that you've noticed

this same car nearby at different times and places, throughout the day. You're sure it's the same car, because you noticed a peculiar dent on the front fender. I might agree that you have good reason to think you're being stalked, based on what you told me. If, on the other hand, you were to tell me that your belief was *caused* by something you ate or some drug you took, then it would be a completely different kind of explanation. It wouldn't be about *reasons*, good or bad, at all.

OSCAR: That's a little weird, isn't it?

SOPHIE: A little, but I think it's correct. If you tell me something you believe, and I tell you, "You only believe that because—" and I then mention something you ate or how you were raised, I'm not even taking your reasons seriously. I'm dismissing them and substituting causes.

DAVID: Like people who say that theists only believe in God because it's a crutch or because they can't cope with reality?

SOPHIE: Yes. When people do that, they're completely bypassing any possible reasons for the belief. Both are ways of explaining beliefs or actions, but the two kinds of explanation are fundamentally different, and seemingly incompatible.

OSCAR: Sophie, I can see the difference now, but you have an amazing talent for leading us into obscure distinctions. I don't see how this has anything to do with the argument for the existence of God.

SOPHIE: I'm getting to that, but I can't make the connection until I get the obscure distinctions right.

DAVID: I have to admit I don't see the connection coming either. But I'm curious to see what it is.

SOPHIE: The key point is that beliefs and actions based on reasons are intelligible but not inevitable.

DAVID: And by "intelligible" you mean simply that they are understandable.

SOPHIE: Yes. We can make sense of them, but they're not inevitable. No matter how much good reason you have for thinking or

doing something, you might not think it or do it. Even though you have every reason to carry an umbrella, you might not do it. And here's the point: When we give a rational explanation of what somebody thinks or does, the explanation is never complete in the way a natural explanation is.

DAVID: What do you mean "not complete"?

SOPHIE: Because there is still the possibility that the person might not do the thing, there's a residue of bruteness in the fact that he did it. It was understandable or intelligible that you carried an umbrella, but because it wasn't inevitable there's still a brute fact in your having done it. Natural explanations remove that bruteness, but rational explanations don't.

OSCAR: But that's just a result of our ignorance. If we knew more about the rational process, it would be just as inevitable as any other natural phenomenon. In fact, it would *be* a natural explanation.

SOPHIE: Maybe, but that's a disputed point. As things stand, we don't know that. But follow along and I'll make the connection to the existence of God. The argument we talked about comes to this: The universe consists entirely of contingent beings, and the Principle of Sufficient Reason demands that something explains them, and that something can't be just another contingent being. So the theist says there must be a necessary being, and that would be God.

DAVID: Right.

SOPHIE: But the mere existence of a necessary being doesn't explain the existence of a contingent natural order. It doesn't explain why the seemingly brute facts of nature are what they are or where anything comes from. The necessary being has to *do something*. Otherwise there would be just that necessary being and nothing else.

DAVID: Yes, that's right. I think I see where you're going, but I'm not sure.

SOPHIE: The complete explanation of the contingent universe would have to include the existence of the necessary being and also the fact that the necessary being *acted* to create the universe. That's

interesting; first, because it implies that the necessary being is an agent, a personal being, not just an impersonal force.

OSCAR: How does it imply that?

SOPHIE: Impersonal forces are essentially lawlike causal patterns, like gravity or electromagnetism. Adding another one to the list doesn't get you past the brute facts involved in all laws. Why this law rather than some other? But a personal being, or agent, doesn't act in a completely lawlike way. It or he acts for *reasons* that explain without necessitating. That's why I had to go to so much trouble to make that distinction.

DAVID: But you said that the acts of rational beings retain a kind of residue of bruteness, so how does that help the argument for the existence of God? Or was it even supposed to help? I'm confused.

OSCAR: David is making sense, for a change. If personal acts and choices are as brute as natural laws, then the whole argument fails, because the Principle of Sufficient Reason fails.

SOPHIE: That's right. The argument that we started with fails, but I think it points to a deeper argument. If there is no necessary being then the natural order just is the way it is, and that's the end of the line. It's a brute fact, or a bunch of brute facts. If there is a necessary being that created the natural order then it's still possible that he might not have, but if he had reasons for doing so, then there is an intelligibility to it. Remember, natural explanations show that something is inevitable but ultimately unintelligible. Rational explanations show that it is intelligible but not inevitable. The rational explanation of the universe is that God had reasons for creating it. Those reasons didn't compel God; he still might have refrained from creating. So there's still a brute fact there. Nevertheless, there's also intelligibility in it. The natural explanation bottoms out in brute facts, with no glimmer of intelligibility.

DAVID: So either way we end up with some brute facts, but the atheistic, natural explanation terminates there while the theistic, rational explanation doesn't.

SOPHIE: It comes down to a choice of which brute facts are more acceptable: the utterly opaque brute facts of contingent natural law or

the intelligible facts of rational choice, which still contain that residue of bruteness. They're only partly opaque.

OSCAR: That's pretty wild, even for you, Sophie.

SOPHIE: I know the argument stands or falls on whether there really is a fundamental difference between the two kinds of explanations, which in turn depends upon whether there is a fundamental difference between the two kinds of causes: natural causes and rational agent causes. And that's controversial among philosophers. But what's interesting to me is how that debate can link up to the argument for the existence of God.

DAVID: It's interesting, no doubt, but still pretty speculative.

OSCAR: It's *all* pretty speculative, isn't it? The whole "necessary being" line isn't exactly a walk in the park of common sense.

SOPHIE: Speculative or not, I still think the original contingency argument, according to which the Principle of Sufficient Reason demands a necessary being, has that gap in it. The mere existence of a necessary being explains nothing about the universe unless the necessary being *does* something. That leaves two possibilities: Either the necessary being had to create the natural order or he didn't. If he had to, then something compels him to. But what could compel, other than yet another force, which leads to an infinite regress? It puts us right back in the realm of forces and laws. The only way out is for there to be another kind of causation that's fundamentally different: intelligible but not forced. And that sounds to me like exactly what we mean by "free." If God was free not to create a universe, then the fact that he did create one is intelligible if he had reasons for doing so.

DAVID: It's hard to see what could force God to create a universe—unless it would be some sort of imperfection if he didn't. By creating a universe, he brought about goods that wouldn't otherwise exist, and as a perfect being, that's what he would necessarily do.

OSCAR: If you go down that road, then the universe itself exists necessarily, because God couldn't have failed to create it. But your starting point, as I recall, was that the universe is contingent; it might not exist. How can you start with a contingent universe as a premise and end up with a necessary universe as a conclusion?

SOPHIE: Maybe it was necessary for God to create some universe or other, so *a* universe necessarily exists, but the fact that it's *this* universe rather than some other possible universe is contingent. There are no doubt many other possible universes that he could have created.

OSCAR: I notice you both refer to God as "he." Is that another brute fact?

SOPHIE: It's a defect in the English language that we don't have a gender-neutral pronoun for persons. In regular writing, I try to alternate between "he" and "she" when referring to indeterminate people, but it's a little weird to do that when talking about a single person. And if I refer to God as "she," it sounds like I'm trying to make some theological point, which I'm not. It's just tiresome to say "he or she" all the time, so "he" is where I end up.

DAVID: If I thought it would help anyone to see the strength of the arguments, I'd gladly switch to "she," or "he or she," or anything else. But unless the subject is actually whether God has gender, it's just a distraction. It's God's existence that matters to me.

OSCAR: I give you both credit for trying, but I think you've pushed this argument to the breaking point or past it. When the argument for the existence of God depends on our knowing whether he had to create the universe or could have skipped it, I think we're in over our heads.

DAVID: I actually think Oscar's right, Sophie. I still think the basic argument is sound, even if it's not the last word.

SOPHIE: Never mind the last word. I'm tired. The next word will have to wait till tomorrow when I can think straight.

Chapter 4

The Natural Order

The following day, Oscar, David, and Sophie meet for lunch in the cafeteria. David is eager to resume their conversation of the day before.

DAVID: I want to take another approach to arguing for the existence of God. I think this approach is less abstract and more intuitively powerful than what we were discussing yesterday. I also think it will appeal to your scientific temperament, Oscar.

OSCAR: Don't keep us in suspense. Let's hear it.

DAVID: Let me start with an analogy. First, imagine that you are walking through a forest. This forest is completely wild, untouched by any human presence.

OSCAR: There aren't too many places like that anymore, but I get the idea.

DAVID: Good. So, you're walking along, admiring the sheer wildness of the forest when you come upon a spot that's very different; and the difference is obvious. Here, the bushes are in neat rows, their branches all of the same length. The blades of grass are short and all of the same length too. There are no loose twigs or leaves lying around. The area is exactly square in shape, and in the center are flowers of different colors. The flowers are arranged in concentric circles, with each band containing flowers of a single color. The bed of flowers is ringed by a row of smooth white rocks. What is the first thing you think, when you find this place?

OSCAR: The first thing I think is that this is no untouched natural paradise. Obviously it's a garden.

DAVID: And what does that tell you?

OSCAR: It doesn't tell me anything, except that someone had money to burn, to be able to afford this fancy garden in the middle of nowhere.

DAVID: What makes you so sure this is a garden and not just an unusual patch of wild forest?

OSCAR: It's *too* unusual, that's what. Somebody, a gardener, had to mow the grass, plant and trim the bushes, rake the leaves, pull the weeds, arrange the flowers and the stones. A garden doesn't just spring up on its own, and it doesn't tend itself either. I'm beginning to see the point of your analogy.

DAVID: Good. I think it should be clear where I'm going with this. If there's one thing that science tells us about the universe, it's that it's an orderly place. In fact, that's exactly why Sophie suggested calling it "the natural order" before. Every scientific law, or law of nature, as we call them, states a principle of order, a uniformity or regularity. It's the job of science to discover and describe this order, and in the process of doing so it piles up evidence for the existence of a transcendent order giver, a cosmic gardener, if you like.

OSCAR: I *don't* like. I'll grant you that this argument is better than your previous efforts. At least it has some sort of scientific basis. But I'm not satisfied with it. For one thing, isn't order a subjective thing? When I go to my car mechanic, her place looks disorderly to me; there's junk piled everywhere. To her, it's very orderly; she knows exactly where everything is.

DAVID: That's a special kind of order, a matter of things being in their expected places. That may be subjective, but the kind of order I'm talking about isn't like that. Here's an example: If you blow a smoke ring, it will hang in the air for a few seconds, but it gradually scatters and fades away, even in a still room. That's because of the random motion of the air molecules. But once that smoke ring is gone, it's gone for good. Even if you wait around for a *very* long time, you won't see those particles form themselves into a ring again. That's because the ring is a very orderly arrangement; scattered smoke isn't. The second law of thermodynamics says that the amount of disorder in the universe is steadily increasing. It

explains why the smoke ring disappears and doesn't reappear; why cars break down; why pictures fade; why we get old and die, and decompose—

OSCAR: Couldn't we repeal this law?

DAVID: There's one person who could do something about it, if you're interested.

OSCAR: I should have known better than to ask. Still, it seems to me that you've changed the subject somehow. I can't quite put my finger on it. A minute ago you were talking about the laws of nature as examples of order; now you're talking about smoke rings.

DAVID: Smoke rings are just an example.

OSCAR: An example of what? Laws of nature? It seems to me that when you call the laws of nature orderly and then you call a smoke ring orderly, you're using "order" in two different senses, although I can't quite tease them apart in my mind at the moment.

SOPHIE: Oscar is right, David. The smoke ring is an example of order that we can observe *within* nature. It presupposes that the laws of nature, including the second law of thermodynamics, are what they are. When you say that the laws themselves are examples of order, you're using the concept of order at a different level. You're applying it to nature as a whole.

DAVID: And this is a mistake?

SOPHIE: I'm not saying it's wrong, but I think it needs to be clarified. The laws of nature make the smoke ring unstable. They explain why it doesn't last. But I don't think you want to extend the analogy and say that the laws of nature themselves are going to dissipate or scatter, whatever that would mean. The analogy breaks down. So if there's some objective sense in which both of these things—the smoke ring and the laws of nature—are orderly, we need a concept of order that fits them both. I don't think we have it yet.

DAVID: What do you have in mind?

OSCAR: I don't think this approach can work. The concept of order can't be applied to the laws of nature themselves. We can

only talk about order within nature, by presupposing that the laws of nature are what they are, just as Sophie said. Or even in some alternate universe—one of Sophie's possible worlds—the laws of nature might be different, but they would determine what is orderly and disorderly in that universe.

SOPHIE: Okay, here's a thought. That a smoke ring is orderly isn't just a result of natural laws. That it's improbable and unstable is a result of those laws, but improbability isn't the same concept as order.

DAVID: Keep going.

SOPHIE: Let me use a different example. The number of possible ways a deck of cards can be arranged is mind-bogglingly large, something like ten to the sixty-seventh power. Any one of them is as improbable as any other, and that includes the order of an unshuffled deck, right out of the box—Ace to King: Hearts, Clubs, Diamonds, Spades. But even though that unshuffled deck is no less probable than any other specific sequence of cards, it's a lot more ordered.

OSCAR: What makes it more ordered? It seems to me that the unshuffled deck just happens to be a sequence we find interesting or appealing or something else equally subjective.

SOPHIE: But that's just the point. It's not merely subjective. What makes it more ordered is the fact that it can be compactly described, using mathematical expressions. Mathematics is the language we use to describe order. Start with an ace, which is a one, add one and you have the next card, and so on. Stipulate numeric values for the face cards and an ordering of suits and you have a formula that describes the unshuffled deck. For a shuffled deck, on the other hand you have to name every card to specify the sequence. The very fact that the unshuffled deck permits a mathematical shortcut is what makes it ordered.

OSCAR: So how does this apply to nature?

SOPHIE: Straightforwardly. You're a science major. You know that the science textbooks are filled with formulas. Each formula is a compact way of describing countless specific interactions in the world. If you drop something from a tall building, you don't have to look up how long it takes things to hit the ground when dropped from that

building. You can calculate it. And you can use the same formula for any building, of any height, on any planet, anywhere in the universe. You'll have to change the values that you plug into the formula, of course, but the formula itself expresses a fundamental uniformity about falling bodies; and that's real, objective order. This means that nature itself is more like a shuffled deck than an unshuffled deck.

DAVID: So when we say that the laws of nature reveal order, we're saying that nature, like an unshuffled deck, is set up in such a way that we can get a mathematical handle on it. We can describe it in the language of order, as you called it.

SOPHIE: That's right. Not only that, but there doesn't seem to be any reason why nature should be like that. We can conceive of a crazy world where there are no laws of nature, or where the laws keep changing.

DAVID: So once again, the natural order demands an explanation from something outside of itself.

OSCAR: I'm getting the feeling that the deck is not only unshuffled but *stacked*. And I'm not so sure we can really conceive of a world without laws of nature or with changing laws. There's more to conceiving of something than just saying it. I think if you start trying to give a coherent description of a nature that isn't lawlike, you won't be able to do it. You'll end up with something incoherent. And if I'm right, that means that you can't have a universe that isn't law governed. And if that's right, then we don't need to appeal to God to explain why our universe is law governed. Any possible universe has to have laws.

SOPHIE: Even if that's true, Oscar—and it may well be—there could be very many sets of possible laws.

OSCAR: So what? We may think our particular set of laws is special, but that doesn't mean we need to suppose that God set them up.

DAVID: Actually, this whole discussion of order is bringing us back to one of the points I wanted to get to in the first place. In recent decades, physicists have come to realize that the laws of nature we know about—particularly the physical constants embedded in them—are very exquisitely fine-tuned. That is, if they were even a

very tiny bit different from what they are, not only wouldn't life as we know it exist, but there wouldn't be a stable universe at all.

OSCAR: Yeah, I've heard of this. If the gravitational constant were a little bit stronger, the universe wouldn't have expanded in the first place and everything would still be in one big ball. If it were a little weaker, stars and planets wouldn't have formed and there would be nothing but diffuse, expanding gases. Or if the masses of protons and neutrons were a tiny bit different, we wouldn't have matter at all.

DAVID: That's right. And it's important to appreciate the extreme delicacy of these numbers. When you say that if the gravitational constant were "a little bit" different, that little bit is calculated to be on the order of one part in ten to the fortieth power, which is a *very* little bit! Similar delicate tolerances apply to other basic constants, such as the strong nuclear force, electromagnetism, and so on.

OSCAR: But who's to say that any of these even *could* be any different from what they are?

DAVID: They are just contingent facts; they can be conceived to be otherwise, without any logical contradiction. There's no necessity for them to have the values they have.

OSCAR: That's not very convincing. Just because we can conceive them being different doesn't mean they actually can be.

SOPHIE: As far as current physical theory is concerned, these numbers are basic. They don't depend on anything else. That's why we've been calling them brute facts. It could turn out that they do depend on some deeper facts, but even if that's so, those deeper facts will have to have their own embedded constants. We already talked about that. If some future theory shows that the speed of light and the gravitational constant both can be derived from some deeper theory, that theory will have constants in it. Those specific numbers don't just fall out of nowhere.

DAVID: Exactly. So the idea is that each constant is like a knob that you can dial a value on, and there is some finite number of such knobs. The knobs are set in just the right positions to make some device work, but if they are even a tiny bit off, the device doesn't

work. So if you were to find a device like that, and find it all tuned in perfectly, you'd be justified in inferring that some intelligent being fine-tuned it. And even if in the future there's a theory of everything that comes down to a single formula, there will still be that one knob that can't be off by even a tiny bit.

OSCAR: Whoa, I don't think it's legitimate to compare the whole universe to some sort of device that's by definition a designed object.

DAVID: It's only an analogy, to make the fine-tuning argument more vivid. The point is that physics tells us that the universe *is* fine tuned, and that makes it reasonable to conclude that the natural order is itself designed.

OSCAR: I don't know. It's like you're claiming that the universe is *improbable* somehow, like that unshuffled deck again. But I have a problem with that. In the case of the deck of cards, we can say exactly what makes the probabilities what they are. We can talk about the physical process of shuffling and why it's so astronomically improbable to get an unshuffled deck by means of those processes. In the case of the basic constants of nature, we have no inkling of whether they are variable at all, except in our thinking about them. And if they are, we have no clue what their variation could depend upon. So I don't see how we can say a thing about whether they are probable or improbable. Just being able to conceive of different values for those constants isn't enough. You have to show that they really could be different!

DAVID: To me, that seems like a desperate stance. Here we have actual scientific evidence indicating that of all the possible universes with basic constants either a little bit different or very different from ours, we happen to find ourselves in a universe that's stable enough for life to exist. But you think that fact is just a dead end, pointing to nothing beyond itself.

OSCAR: I just have trouble understanding what makes all those other universes *possible*, except in the trivial sense that we can imagine them. That seems like a very weak kind of possibility to me. It's not like an ordering of cards in a deck, because with the deck of cards I can not only conceive of a different ordering, I can also understand how it could get that way. With the constants of nature, I can't.

DAVID: It just means that there is no logical necessity or causal necessity that makes the laws what they are. Logically, they can be conceived to be otherwise; causally, all the causal laws are included in what we're trying to explain.

OSCAR: In all those other possible universes, or most of them, there would be nobody to marvel at the fine tuning, so maybe it's not so amazing after all.

DAVID: That's like saying that if you jumped off a high bridge and survived the fall, you'd have no reason to be surprised, since, after all, if you hadn't survived, you wouldn't be around to ponder the probability. That doesn't strike me as a very logical conclusion. If you survived that fall, you'd have every reason to be astonished.

OSCAR: So this is the argument then? The universe appears to be fine tuned, so the best explanation of that fact is that God did it?

DAVID: That's about it. We can reasonably infer the action of an almost unthinkable powerful intelligent being who specifies the causal details of the natural order. I think it's even more powerful when coupled with the previous argument, according to which there has to be a necessary being outside of nature who somehow acts to bring the natural order into existence. Acting implies choosing, and in the fine-tuning argument we have actual empirical evidence that a supremely careful choice was made. That being didn't create just any order or just any set of laws; he created a very specific kind of order, conducive to the support of living things.

SOPHIE: I have some questions about this.

DAVID: I thought you might.

SOPHIE: First, let me say that I see the force of the argument, as you've presented it. But I know that there are some speculative theories according to which the big bang might have resulted in huge numbers of universes, each with its own set of laws but separate from each other. I believe that's called the *multiverse* theory.

OSCAR: I've heard of that too. So if there are trillions upon trillions of universes, then the existence of a fine-tuned one isn't so amazing, is it?

DAVID: Sure, but let's keep this in context. What Sophie said is correct: The multiverse theory is a highly speculative theory, in that the laws of quantum mechanics allow for it as a possibility. But come on, the only universe that we have any evidence for is this one. The bare possibility of zillions of other universes, based on nothing more than the formalism of quantum theory, hardly counts as an objection to this argument. Theists take a lot of heat for believing in an unseen God, but this argument says that based on what *is* seen, the belief in such a God is reasonable. How is it more reasonable to believe an almost endless array of separate universes for which there is zero evidence at all?

OSCAR: But that fact that the multiverse is possible at all shows that the appearance of fine tuning doesn't prove anything. If you have enough shuffles, you *will* get that unshuffled deck. And if you have enough universes, you'll get a nice comfy one.

DAVID: You're using the p-word, "proof." But I said at the outset that the goal isn't to provide the kind of proof for which there is no conceivable counterexample. The goal is to offer a reasonable case, with reasonable evidence, for God's existence. I think these arguments do just that. Sure, if you want to insist that we live in just one universe out of trillions randomly spewed from a singularity, for which there's no evidence at all, how is that more reasonable than concluding that because this universe appears to be so extraordinarily fine tuned, it must actually be fine tuned, with all that that implies?

OSCAR: Anything at all is more reasonable than the existence of God.

SOPHIE: If you start out with that assumption, then the discussion can't really go anywhere. I have another problem with multiverse argument, anyway.

DAVID: What is it?

SOPHIE: The multiverse theory, as I understand it, is a conjecture based on the laws of quantum theory, which I don't pretend to understand in detail. But these are laws of *this* universe, this natural order that we're in. I don't think they tell us a thing about whether these other speculative universes actually have entirely different sets

of laws. They could just as easily be alternate universes with the same laws, just disconnected from each other.

DAVID: Good point; one that I never thought of before.

SOPHIE: But I have another question about your argument, David.

DAVID: Go ahead then, let's hear it.

SOPHIE: Okay, your position is that the universe appears to be fine tuned in a way that's conducive to life, right?

DAVID: Right.

SOPHIE: I'm thinking about the word "conducive." Do you mean that given the physical laws that we have, it's merely possible for life to exist or do you mean it's *likely* to exist?

DAVID: I'm not sure I get the point of the question.

SOPHIE: Let me try it this way: Suppose we could rewind the universe back to the big bang and then press "Play" again. And suppose we allow for enough indeterminacy that the same exact events don't have to happen the second time around. Would you expect life to arise anyway?

DAVID: Oh, I see what you're asking. You're asking me whether the fine tuning of the universe in a way that makes life possible also makes it inevitable or at least probable.

SOPHIE: That's it exactly.

OSCAR: Good question. I eagerly await the answer.

DAVID: My answer is: I don't know. My argument doesn't depend on it. I think it's strong enough as it is. My belief, however, based on what I've read about it, is that even with the laws of nature that we have, it's very, very unlikely that life arose on its own. So as far as the origin of life is concerned, I think it was designed and started by an intelligence, and I believe that's God.

OSCAR: So now we're into creationism?

DAVID: No, I'm not talking about creationism, at least not what I understand by that word.

OSCAR: What's the difference? You're saying that God had to create the first life. How is that not creationism?

DAVID: Well, creationists deny that evolution happened. I'm not claiming that. Once life was created, it could have evolved from there, and probably did. That's not a denial of evolution.

SOPHIE: That's a good point. You can only have evolution *after* you have life. Evolution is descent with modification, and you can't have descent unless you already have life.

OSCAR: I guess you've never heard of chemical evolution.

SOPHIE: I've heard of it, but go ahead and make your case.

OSCAR: Happy to. The idea is that in the original seas of this planet there were just random chemicals. But under the conditions that were present then, over millions of years, these chemicals began to form more complex compounds, including organic compounds, like amino acids. After that, a self-replicating molecule formed, and once that happened natural selection could kick in and there was evolution. At some point it gave rise to things that we'd consider alive. The important point is that evolution could have started before there was life and eventually produced life.

SOPHIE: I think you'd need more than self-replication to get evolution going.

OSCAR: Why? What's missing?

SOPHIE: Crystals replicate, but they don't evolve. For evolution to happen, you have to have variation in each generation, and it has to be heritable. You need a genetic code of some sort, so that different variants have different lines of inheritance. That's more complicated than a molecule that just makes duplicates.

DAVID: From what I've learned in bio classes, even the simplest living thing, in order to count as living, has to be able to maintain its own internal organization even while the environment changes, which is called homeostasis. And it has to be able to build itself out of materials from outside itself and repair itself as it breaks down. All living things do these things, and when they don't, they don't stay alive very long. So if we're talking about the origin of *life*, we're talking

about the origin of the machinery for all this self-maintenance. That's pretty complicated machinery, way beyond simple self-replication. Not only that, but the oldest known life forms go back about three billion years, and they were bacteria, already pretty complex.

OSCAR: Very good. But here's the proof: We're here, so life *did* get started and evolution did happen.

DAVID: But I'm not disputing that life got started or that evolution happened. I'm only saying that, in my view, the case for the spontaneous *natural* appearance of the first life is very weak. So I don't see why I should feel any necessity to believe it.

OSCAR: If you consider the alternative, you'd see the necessity.

DAVID: One alternative is that God created the first living things. Since I have other reasons for believing that, I see no reason to avoid that conclusion when it comes to the origin of life. As far as I'm concerned, the fine tuning of the universe and the necessary-being arguments are more than enough to make a good case for God's existence. So why should I shy away from thinking that God created the first life?

SOPHIE: That's fair, but if that's your reasoning, why *aren't* you a creationist? Why shy away from the idea that God created every species separately and no two species have common ancestors?

DAVID: Two reasons. First, there's plenty of scientific evidence for evolution. I'll just leave it at that, since I don't think either of you will disagree with me. On the other hand, there's no real evidence for chemical evolution leading to life. That's sheer conjecture.

OSCAR: It's still better than an invisible—

DAVID: Wait, I didn't get to my second reason yet. If you grant the premise that the first life was designed and created, there's no reason to think it had to be the simplest possible life form. A lot of creationists base their arguments against evolution on the premise that it's hard to build up complexity from simplicity by random processes alone. I don't know if that's true or false, but if the very first living things were designed by God, they could have had a lot of evolvable complexity built into them from the start.

SOPHIE: Now that's interesting. What you're saying is that intelligent design of the first living things can actually support the theory of evolution. I don't think I've heard that before.

DAVID: At the very least, it takes away some of the main objections to evolution.

OSCAR: Aren't you the guy who said that the multiverse theory was sheer conjecture too? You think this is better? You're saying that God created the first living things, front-loaded with all kinds of latent complexity, so that over time they'd evolve into billions of species. And that's supposed to be more believable than chemical evolution?

DAVID: As I said, it's what I'm personally inclined to believe, but only because I think I have a good case for God's existence on other grounds. So to me, it's not a case of dueling wild conjectures. The divine design theory is less wild because of those other arguments, so it adds to the case for God's existence without being the foundation of it. What we know now is that even the simplest cells are very complex machines. And when I say "machines" I mean it in a literal sense, not just as a figure of speech. We also know that machines are exactly the kinds of things that need engineers, or designers. Those are not wild conjectures; they are known facts. But we also have good reasons to believe that life hasn't existed forever, so at some point in the past there had to be machines that weren't the result of reproduction by a parent or parents. You think they were the result of chemical evolution, but what's the evidence for that? There isn't any. It's mainly a result of your *assumption* that life was the result of natural causes. But assumptions aren't evidence! The only reason you or anyone prefers the chemical evolution theory, as far as I can see, is that you've already decided that the design theory is impossible. *You've already ruled it out*, and not for scientific reasons. You've ruled it out because it doesn't fit your philosophical view of the way the world is. On the other hand, there's lots of evidence for the claim that machines need to be designed and built. All the machines we know about that have anything remotely approaching the complexity of a living cell are designed and built by intelligent engineers.

SOPHIE: So it's a case of Sherlock Holmes's dictum.

OSCAR: “When you’ve eliminated the impossible, whatever remains, however improbable, must be the truth.” Yes, Holmes was right. And that’s why I’ll take even a vague and speculative theory of chemical evolution over divine design any day.

SOPHIE: I think David would use Sherlock to make the opposite point. If it’s impossible to get machines without engineers, then no matter how improbable it may seem, life must have been engineered.

OSCAR: Again, I have to insist that any naturalistic theory is less improbable than God.

DAVID: And that tells me that you’re not really engaging the arguments for the existence of God. You’re presupposing that God doesn’t exist and using that presupposition as an excuse both to dismiss any arguments for his existence and to accept even wild theories that don’t involve God.

SOPHIE: Can you be sure you’re not doing the same thing, in the other direction? Maybe you’re so willing to believe in God that you give these arguments *for* God’s existence the benefit of the doubt, but when it comes to the multiverse and chemical evolution, all of a sudden you have a very high standard of evidence.

OSCAR: That’s exactly right, Sophie.

DAVID: I can’t be sure, no. We can never be sure that we’re not deceiving ourselves. All we can do is try our best to set aside what we want to be true and just follow the evidence where it leads. I like to think I’m doing that, but I’d never claim that I always succeed. That’s why it’s good for me to have these discussions. It keeps me honest. If I make a mistake, I know you or Oscar won’t let it slip by.

OSCAR: I think my biggest problem with this approach is that it’s a “God of the gaps” kind of argument, and I think arguments like that have a poor track record.

DAVID: What do you mean by that?

OSCAR: There are things that science can’t explain yet—gaps in our knowledge—so you theists jump in and call these evidence for God. Sure, I’ll grant you that we don’t have a fully worked-out explanation of the appearance of fine tuning in nature, and we don’t

have anything very definite about the origin of life. I'll even grant you that there are some scientists out there who act like we know more than we really do about these things. But at the end of the day, we're just talking about our ignorance, and ignorance isn't evidence for anything. To think that ignorance is evidence is to commit a fallacy, appropriately called the Argument from Ignorance. At best, ignorance gives you a basis for agnosticism, not theism. There was a time, before there was any understanding of germs, when things such as plagues looked like evidence of God's wrath. One by one, these superstitions have been pushed aside by the advance of scientific knowledge. It seems like a bad idea to use any such gaps to argue for God's existence.

DAVID: I see your point, but I don't really see why we should avoid the use of gaps. It's not always a fallacy. After all, scientists do the same thing, don't they?

OSCAR: I don't think so, no.

DAVID: Sure they do. I already gave you an example. We were talking about the big bang and the expanding universe. But astronomers find that galaxies hang together more tightly than they can account for by estimating their mass. They take this as evidence for the existence of dark matter, which is a special kind of matter that can't be seen or directly measured. It's invisible to our eyes and even to radio telescopes, but they think it makes up about 80 percent of the matter in the universe! They only believe in dark matter because it fills an important gap in their understanding. And they regard the fact that it fills that gap as evidence for it. There's no direct observational evidence. There are plenty of other examples like that in science.

OSCAR: That's fine, but when scientists use gaps in that way, they proceed to generate testable hypotheses. They haven't found dark matter yet, but they have a pretty good idea what they're looking for. They don't have a worked-out theory of the origin of life, but they know something about the constraints on a successful chemical evolution theory. This way of using gaps keeps science moving, but when all you can say is "God designed it," that's the end of the road. It's a science stopper.

DAVID: I don't see why it has to be, but even if it is, so what? The purpose of science isn't to keep scientists busy; it's to get at the truth about the world. If God exists, it may be beyond the methods of science to prove it, but it's not the job of science to insist that he couldn't.

SOPHIE: I think there's a more general point at stake here. David is arguing for the existence of something beyond the natural order, something supernatural. If there's evidence for such a being, evidence that we can see from within nature, it's necessarily going to have to look like a gap in the natural order. If it didn't, it would have a natural explanation and therefore wouldn't be evidence for a supernatural being.

OSCAR: So as long as we don't run out of ignorance, we don't run out of evidence for the existence of God? What a stroke of luck for theists!

DAVID: It's not like that. Despite your sarcasm, the argument isn't that just any gap in knowledge is evidence for God. It's that certain gaps are "God-shaped"; they point to something mindlike beyond nature. The existence of fine-tuned natural laws isn't just mysterious; it's like an arrow pointing at intelligence. In the reality that we live in, it's intelligence that creates order. The existence of chemical machines of the sort needed for life isn't just a random thing that we're ignorant about, because in our reality, machines are the very paradigm of intelligent design.

OSCAR: So give me an example of a gap that isn't evidence for God.

DAVID: I just did. Dark matter! Rather, the way the galaxies hang together is something that we can't explain unless we posit something *unseen* to do the job. Why don't theologians jump in and challenge the dark matter theory and claim that God supernaturally manages the galaxies? It's because there's nothing especially "God-shaped" about that gap. There's nothing in our ignorance that would indicate a supernatural intelligence must be involved. There are plenty of other gaps in our scientific knowledge that are never offered as evidence for the existence of God. But when you look at the appearance of living things, or the delicate fine tuning of nature, it's different. These things look exactly like the work of a

supernatural intelligence. It's not just ignorance that drives the argument; it's observation.

OSCAR: It's ironic that we're even having this discussion at a time in history when scientists are beginning to take steps toward creating artificial life in the laboratory. Before you even say it, I know it hasn't happened yet, but the creation of artificial "protocells" is already more than sheer conjecture. It's not such a stretch anymore to think that fully living artificial cells will be made in the foreseeable future.

DAVID: I've read about this, but I don't see what's ironic about it.

OSCAR: If scientists can create life in the lab, you clearly don't need God to do it, that's what's ironic.

DAVID: The way I see it, these scientists are acting as engineers, or designers, and the sheer technical complexity of what they're doing actually illustrates the point about the need for an intelligent mind to account for the appearance of life. If there were no scientists around when life began, there must have been some other mind or minds.

OSCAR: To me, it's all very thin. I'd rather just say we don't know and leave it at that. And what if science does finally explain the fine tuning and the appearance of life, as I think it will? You know, if the structure of galaxies can eventually be explained without dark matter, scientists will drop the theory. Will you abandon belief in God if science explains the gaps?

DAVID: If that happens I'll certainly have to abandon those arguments, but since they're not my only evidence, I wouldn't stop believing just because of that. Any belief based on evidence carries a risk of someday being overturned by future evidence. I would have thought that any scientific-minded person would approve of that.

Chapter 5

Suffering

A few days later, Oscar has sent an email to David and Sophie telling them he wants to continue the conversation about the existence of God, so they arrange to meet outdoors, near an open field where other students are reading, sunbathing, or throwing Frisbees around.

OSCAR: I've been thinking about these arguments, and the whole "strong" and "weak" atheism thing. In particular, I've been thinking about how some of the arguments just seem to come down to our basic presuppositions about things. If you're already convinced that God doesn't exist, as I am, then none of the so-called evidence looks very convincing; but if for whatever reason you think God does exist, the evidence looks much stronger. I think I should be able to do better with the strong atheist position.

DAVID: If I remember correctly, that's the position that says God *couldn't* exist. How do you propose to show that?

OSCAR: I think a pretty strong case can be made that God couldn't exist—at least not the sort of God we have been talking about.

DAVID: What do you mean by the "sort of God we've been talking about"?

OSCAR: I mean a God worth worshiping; a benevolent, omnipotent, supernatural being. Someone who's more than just a first cause or even just an intelligent designer. So far, the kind of God we've been talking about has been pretty, well, abstract, and barely personal: a supernatural intelligence beyond nature.

DAVID: That's true. I wouldn't want anybody to think that belief in God amounts to nothing more than abstract arguments. We've been talking about that sort of thing because that's how our conversation got going, but most believers are attracted by the personality of God as they experience it, not simply by arguments. But I don't see how this makes it easier to prove that he doesn't exist.

SOPHIE: I see where Oscar is going with this. In fact, I'm surprised it took him this long to get around to it.

OSCAR: Unlike some other things we've been talking about lately, there's nothing especially subtle or speculative or exotic about this argument. We don't need to understand cosmology or quantum mechanics or complexity theory to see the force of it. I'd bet that everyone has considered it at one time or another, even true believers. It's just that the true believers are better at denial, which is how they stay true believers.

DAVID: Denial of what?

OSCAR: Denial of human suffering. That's what it comes down to. Read the news on any day of the week. Read about the people who are killed or maimed by other people, struck down by disease, killed or ruined by natural disasters. Or think about the children who are born with conditions that will kill them before they even have much of a chance to live, or those who will be abused by the adults who are supposed to care for them. It's an endless parade of misery, to say nothing of the fact that the end of the parade is death by so-called natural causes, if one is lucky enough to have escaped the other horrors. "Natural causes," of course, is just a polite way of referring to the slow deterioration and eventual breakdown of our bodies—the irreversible deterioration and loss of our faculties and with them, everything that was ever good in life.

DAVID: I can't speak for others, but I certainly don't deny these things, although I think there are many who manage to find something good in life even in the face of suffering. But I'd never deny the reality of the suffering.

OSCAR: Then it's a mystery to me how you or anyone can believe in an all-powerful, benevolent, *loving* God, who nevertheless tolerates all this in the universe that he supposedly created and rules. You want me to believe that a loving God looks upon all this, with all the power of the universe at his command to stop it, and does nothing?

DAVID: I admit that it can be very hard to understand these things, and you're right to think that they are a challenge to all believers, but I don't see how it proves that God doesn't exist.

OSCAR: Like this: If God really is omnipotent, then he can, if he chooses, prevent or stop all suffering. If he's really benevolent and loving, then he definitely wants to do so. But since we see suffering all around us, it's obvious that he is *not* stopping it. Why not? We have exactly two choices: Either he's not as powerful or he's not as loving as he's cracked up to be. Whichever answer you choose, the end result is the same. He's not a God worth believing in and certainly not worth worshiping. We could expect the same result from a powerful but impersonal and indifferent force. If the omnipotent and loving God that people pray to existed, we wouldn't find suffering in the universe. But we do, so he doesn't. End of argument.

DAVID: It sounds to me like you're blaming all the suffering in the world on God. Don't forget, *we* inflict a lot of suffering on ourselves and on one another. God gave us free will, but he is not to blame for what we do with it.

OSCAR: If he's all-powerful, he could have given us free will *and* made it impossible for us to do evil things to each other. He could have made us free but perfectly benevolent beings.

SOPHIE: Wait a minute. I don't think that makes sense. To be free means that you *can* choose evil. So if you don't mind me talking about possible worlds again—

OSCAR: Must you?

SOPHIE: —where there are free agents there are possible worlds in which they choose evil.

OSCAR: So it's too tricky even for an omnipotent God?

SOPHIE: I'm saying that it's self-contradictory to suppose that there could be a free agent for whom it's impossible to choose evil. It doesn't count against God's omnipotence that he can't create self-contradictory things.

OSCAR: So you're placing limits on omnipotence now?

SOPHIE: No. Omnipotence, if it means anything at all, means the ability to actualize anything that's logically possible. He can't create a four-sided triangle, because that's not a coherent possibility in the first place; it's just a meaningless jumble of concepts. A free agent who can't choose evil is no better.

OSCAR: In that case, I'd have to say that the price we pay in suffering is too high for the alleged benefits of free will, whatever they are; you'll have to remind me. If God could have alleviated suffering by creating us without free will and if he were truly loving, he would have.

DAVID: I don't think so. For one thing, it seems very likely to me that God's love for us depends to a great extent on the fact that we *are* beings with free will. I'm not even sure I know what it would mean to create *us* without free will. Beings like that wouldn't be us, or much like us. They wouldn't be anybody, because free will is built into the basic idea of what a person is.

OSCAR: Do dogs and squirrels have free will?

DAVID: I don't think so, no.

OSCAR: Doesn't God love them too?

DAVID: I believe so, but not in the same way he loves us.

OSCAR: But he could have made us like them, without free will, and still loved us.

DAVID: Yes, he could have made a world without people in it, but it's clear that that's not what he set out to do. Besides, I think you're seeing this in a one-sided way. Nobody likes suffering, but that doesn't mean that nothing good ever comes of it. Life throws a lot of challenges at us, and sometimes it hurts a lot, but without the challenges there wouldn't be many opportunities for growth, especially moral growth.

OSCAR: What do you mean by “moral growth”?

DAVID: I’m talking about the learning of virtues like courage, compassion, patience, perseverance, and love. If life were never frightening, there would be no reason or opportunity for courage or perseverance. If people were always kind, it would be easier to love them. If there were no pain, there would be no occasion to feel compassion.

OSCAR: Whoa! Apply the brakes! Am I hearing this right? Are you really saying that we need suffering so that there will be a chance to learn courage and compassion and the rest of it?

DAVID: Yes, pretty much. Is that so bizarre?

OSCAR: It goes way beyond bizarre. It’s like saying we should appreciate tooth decay because it has given us the opportunity to develop the fine science of dentistry; or we should be grateful for serial killers because they give detectives a chance to hone their skills. This way of looking at things stands reason on its head. Courage is valuable *only* because life can be scary. Compassion is valuable *only* because we do live in a world of pain. These virtues have no value in themselves; they get their value because of suffering. If there were no suffering, they wouldn’t be missed any more than dentistry will be missed if dental problems are ever permanently prevented. And are you really saying that love is good only if it’s difficult? If this is the best reason you can think of for why a benevolent God permits suffering, I think my job here is finished.

DAVID: First, I’m not saying that there’s no virtue in loving people who love you back, but I am saying that it’s a high achievement to love someone who despises you, and the universe is a better place for that achievement, however rare it is. Second, I think a case can be made that a universe with virtues, like courage and compassion, in it is a better place than a universe without them, as long as the suffering involved in acquiring them is balanced out in the end somehow.

OSCAR: So I guess there must be suffering in heaven too, right? After all, if there isn’t any suffering there, it won’t be as great a reality as what we have, according to your argument. Maybe we can

look forward to even *worse* suffering in heaven! I feel a hallelujah coming on!

SOPHIE: I don't think there's much point in moving the argument in that direction, Oscar. The whole point about afterlife is that it comes *after* this life, and that can change the value of things. You can't just say that if suffering has a point in this life, it must have the same point in the afterlife, unless you know that the afterlife is just like this one in every relevant respect. But you don't know that. It's also possible that the afterlife, if any, presents new challenges to those people who manage to surmount the challenges here. Maybe there are other virtues to acquire that we don't even know about yet.

OSCAR: Fine, but it still seems to me that we are rather overabundantly supplied with opportunities for moral growth here and now in this life. Our cup really runneth over. There seems to be plenty of suffering that offers no opportunity at all for moral growth, because it's invisible. Imagine an orphan child in some hell-hole somewhere who dies of fever in the middle of the night, but because she's an orphan and because this sort of thing is so common in that part of the world, no one really notices or cares. There's no moral growth, hardly even any response. It's just another miserable and meaningless death. Whose moral growth was paid for by her suffering?

DAVID: You can't try to balance the books that way, as if each instance of suffering pays for a particular bit of someone's moral growth. It's like asking which raindrop nurtured which tree in a forest. The point is that there are no trees without rain, even if some trees don't grow as tall as others.

OSCAR: How comforting.

DAVID: It's not meant to be comforting, Oscar. I'd never say that to someone struggling with suffering. I'm not claiming that there's something I or anyone could *say* to stop the pain. It's not like that. Suffering is real, and theories and arguments can't take it away. But when you say, as you seem to be, that suffering is pointless, I have to say that it's just not obvious that it really is pointless.

OSCAR: Then explain how the suffering that brings about all this moral growth is balanced out in the end. What's that supposed to mean?

DAVID: It means that the suffering we experience in this life is insignificant in comparison to the joys of the next life. Part of what makes human suffering seem so meaningless is that we have trouble seeing beyond it, especially when we're in the midst of it. If this life is really all there is, it's hard to avoid the conclusion that luck plays at least as large a role as virtue in determining how one's life goes. I'm not going to pretend that horrific things don't happen to wonderful people sometimes. Clearly they do. If what we can directly see of life is all there is, it's hard to believe in a benevolent God. I get it. Plenty of people do lose their faith in response to suffering, and I get that too. I can't promise it won't happen to me. But if what we call death isn't the end of us, things may look very different. There's plenty of pain that we endure in this life, only to discover later that it was *worth it*. That's called redemption, and we've all experienced it. I've heard you play the piano Oscar. And I've seen how much satisfaction you get out of it. I bet you had to put in a lot of hours practicing.

OSCAR: You have no idea. I still do.

DAVID: And I bet you hated a lot of that practice time, and wished you could be doing something else, especially when you were a kid and just starting out. But it was worth it, wasn't it?

OSCAR: Okay, sure, but piano practice isn't real suffering.

DAVID: I know that; I'm just making a point. When you were a little kid you couldn't really see the payoff of all those long boring practice hours. Now you can. If there's an afterlife, we may well have a similar feeling about what we endured in this life. That's my only point. We can't rule that out.

OSCAR: So that's it, is it? Not only do we have God's existence to establish, we also have to show that there is life after death. It seems to me that the theist has to juggle quite a few balls at one time.

SOPHIE: Oscar has a point, David. He set out to show that a benevolent and omnipotent God *couldn't* exist in a world that has as much suffering as this one has. Your reply is that the suffering

may be a necessary precondition for the existence of a greater good, namely moral growth. That's fine, but you apparently agree that moral growth, by itself, is not sufficient to justify the suffering that we find in the world, so it must be balanced out in a next world. This means that God's existence is not logically independent of the afterlife hypothesis.

DAVID: Oscar's claim is that a God worth worshiping *couldn't* exist with all the suffering in the world. That's a strong claim. To refute it, I only have to remind him that God *could have* a greater good in mind, such as moral growth, or the suffering *could be* balanced out in the afterlife, or both. If these things are even possible, Oscar's attempt to show that an omnipotent, benevolent God couldn't possibly exist fails. But I'm not going to deny that God and an afterlife of some sort are part of the same general worldview. To anyone who believes in God, the possibility of an afterlife isn't so far fetched. Oscar complained that the arguments so far only took us as far as a kind of abstract creator-designer God, not a benevolent, moral God. As far as that goes, he's right. But if those arguments are successful, it's not such a huge step to suppose there's an afterlife or a divine plan for moral growth and redemption. He's presenting this argument from suffering as if those arguments were never uttered and we're starting from square one. But we're not.

OSCAR: Doesn't all this lead to a kind of callousness about human suffering? After all, if the afterlife is so wonderful, why should we work so hard at preserving mortal life? Why should we care about trying to alleviate suffering at all? Why not just ignore it and let God compensate for it later? Didn't you say that suffering is *insignificant*?

DAVID: I said that suffering *may be* insignificant *compared to* the afterlife prospects. Please don't make me sound like I know these things with certainty. I really don't think we're meant to look at life as if we already were in the afterlife; we're just supposed to remember that there is such a perspective and someday we'll have it. Imagine studying hard for an exam, but studying the wrong material by mistake, and failing it. Somebody, like Sophie, might say, "Don't take it too hard. Someday you'll look back on it and laugh." That's true, but she wouldn't mean you should find it funny now.

SOPHIE: As I piece together your replies to Oscar's challenge, David, it seems that for your position to work, a certain amount of suffering has to be necessary for some greater good, namely moral growth. But the net amount of suffering in the world has to be no greater than it needs to be to bring about that greater good. If there is more suffering than is strictly necessary for moral growth, that suffering would be pointless. And it seems to me that no matter how insignificant suffering might seem from the standpoint of the afterlife, pointless suffering still ought not to be tolerated by a benevolent God.

DAVID: It's more complicated than that, Sophie, because our free will means that the net amount of suffering that occurs in the world is partly up to us. We can choose to increase it or decrease it, and we do so every day. Those of us who are believers believe that it's God's will that we try to decrease it.

SOPHIE: I don't get it. I understand you to be saying that suffering that seems pointless to us might nevertheless be necessary to bring about the greater good of moral growth. That's right, isn't it?

DAVID: Yes.

SOPHIE: So does that mean that we, by exercising our free will, push the net amount of suffering beyond what's necessary, into the "pointless" range?

DAVID: Okay, I see what you're asking. When we abuse our free will and cause suffering, the suffering we cause is pointless in the sense that there's no justification for it. But it's not pointless in God's plan, because part of the point of free will is that we come to understand our responsibility not to cause suffering. That understanding is part of our moral growth, so in the larger scheme of things there is justification for it. It's just not a justification that we can appeal to as individuals. It's never okay to hurt someone and say, "Hey, I was just pulling my weight in God's plan for moral growth!" But when I hurt someone and then experience remorse, and resolve not to do that again, that's moral growth. What I did was still pointless *for me to do* but not pointless *for God to allow*. And when I come to realize my responsibility to try to diminish the pointless suffering in the world, it's not as though I'm trying to patch up God's botched plan.

OSCAR: Let me just point out that you don't have to believe in God to think it's a good idea to decrease the suffering in the world. Theists don't own human compassion and kindness.

DAVID: I agree completely with that. I happen to think that God is the ultimate source of this "good idea," but I'll save that for another time. From the standpoint of a believer, though, we can choose either to work with God or against him on this. This is why it's sometimes said that we are co-creators with God. With each choice we make, we help to bring the moral universe into being.

OSCAR: This is all very moving, but it really only applies to personal evil, the suffering that we inflict on each other. When it comes to suffering from natural causes, we are not co-creators. We may be able to help each other out somewhat in the face of this suffering, but there's a lot that we can't do a thing about. As things stand, for example, if you are stricken with Alzheimer's disease, you are on a one-way street to mental disintegration and, after far too much time, death. This isn't something we have co-created; it's not the result of anyone's free will choice, except maybe God's. And it's only one example. Does anybody really want to say that all of the horrific suffering caused by nature is no more than what's necessary to give us opportunities for moral growth?

DAVID: It gives us something to strive for, to overcome these natural evils.

OSCAR: No, not this time, David. I won't buy it. You didn't really confront my question. Are we really supposed to believe that all the natural suffering in the world amounts to no more than what's needed for us to grow morally? There's just too much of this kind of suffering. If you're going to argue that all of the people who have suffered and died from bacterial diseases are redeemed by the fact that it gave us motivation to develop antibiotics, I'm out of the discussion. Let's grant, for the sake of the argument, that *some* good is achieved by humans striving to protect other humans from natural suffering. You have still given me no reason to believe that the sheer amount of natural suffering in the world, if I can call it that, is only what it needs to be for moral growth. To be specific, I think it's crazy to think that if Alzheimer's or rabies had never existed, humanity would have been

deprived in some way, unable to reach its true moral potential. But that appears to be what you're committed to, because, as Sophie pointed out, any more suffering than what's needed for moral growth would be pointless. I can't picture this benevolent God saying, "Things have been quiet. A good earthquake ought to liven them up. I see one coming, and I think I'll just let it rip."

DAVID: But this is just the sort of case where it is important to remember that there is an afterlife—

OSCAR: No. There's a limit to how much suffering you can charge on this afterlife credit card. Unless you want to argue that the afterlife is so wonderful that any degree of suffering is insignificant, there must be a maximum justifiable level of suffering. You seem to be saying that whatever amount of suffering we can't avoid is okay; things will work out in the next world. I find that simply too pat and, frankly, unbelievable.

DAVID: I have to wonder whether we're really in a position to know whether there's more natural suffering in the world than can be redeemed. Our vision in such matters is very limited, after all.

SOPHIE: But David, you don't want to end up in the position that Oscar ridiculed earlier—of becoming callous to suffering because it's necessary.

DAVID: Oh, I agree with that completely. I just want to point out that we shouldn't assume that we are able to understand the full implications of suffering in the whole scheme of things. There's no reason to expect God's will to be intelligible to us in every detail. Oscar seems to think that it's just obvious that the amount of natural suffering exceeds any possible redemption. It's not callous for me to insist that it's just not obvious. We're not in a position to discern the obviousness of it.

OSCAR: That's certainly convenient. If we run up against a problem, such as the sheer amount of suffering in the world, we can just brush it off as one of those things we are too puny to understand.

DAVID: That's not what I mean at all. I don't mean that anybody should brush anything off. You're absolutely right, Oscar, to take suffering seriously and to object to any attempt to minimize it. I'm only trying to show that the problems we have with understanding

the full meaning of suffering—and I don't deny those problems—don't add up to a disproof of God's existence. That disproof would have to include the premise, "If God had any good reason for allowing suffering, I would know exactly what it is." But God may also have reason for encouraging us to cultivate a degree of faith and trust, to let us learn to accept that we can have only a vague idea of how the existence of suffering can be justified. Maybe this is a way of making sure that we *don't* become apathetic about suffering.

OSCAR: So he keeps us in the dark?

DAVID: So he lets us find our own way, knowing that eventually we'll understand. It's not so different from the way parents treat children, is it?

SOPHIE: My parents didn't tell me I was adopted until I was in the first grade. Before that, they didn't think I would understand, and they were afraid it would just cause a lot of pain and confusion. It's never easy for a child to learn a thing like that, I guess, but in retrospect I think they made the right decision.

DAVID: That's the sort of thing I mean. We have to learn to trust that what is baffling now will make sense in the long run, and to remember that the long run is longer than a mortal lifetime.

OSCAR: I still say that even though the suffering in the world may not *disprove* the existence of God, as I originally thought, it still makes a pretty strong case against God. Even without resorting to the p-word, it's more than reasonable to conclude that a perfect being isn't in charge of this mess. And as I think about it, there's another whole aspect to the problem of suffering that we haven't even touched on.

DAVID: What aspect is that?

OSCAR: We've been talking about human suffering, since that's where I started things off. What about the suffering of animals? The whole biological world is filled with predators and parasites who are slaughtering each other every second of every day. I saw a film on the nature channel that showed hyenas trapping a water buffalo and tearing into him, starting to eat him while he was standing there, still alive. Venomous snakes paralyze their prey before they chow down. The whole food chain is a never-ending circle of death and torment,

not just a circle of life. So what are they getting out of all this? Moral growth? Animal heaven?

DAVID: I've thought about this sometimes, and I don't have any easy answer. One possible answer is that for a world with beings like us in it to exist, there has to be a food chain, and that means there will be predators and all that goes with them.

OSCAR: Why couldn't God have made a world where all animals are vegetarians?

SOPHIE: I think some people interpret the Bible to say that he did just that, but we strayed from the path.

OSCAR: *We* strayed from the path, so *hyenas* became vicious predators? How is that supposed to work?

DAVID: I don't want to turn this into a discussion of the Bible. Some people say that no matter how you think about it, there has to be some way to keep populations in check. Even if all animals were vegetarians, there's only so much vegetation to go around, so eventually some would start starving, and that's suffering. So predation is just another way of keeping things stable. Again, if you can accept that God had some higher purpose for creating an orderly natural world where beings like us could thrive, maybe it's just an unavoidable fact that animal suffering has to exist in that world.

OSCAR: Seems to me an omniscient God could do a bit better.

DAVID: Maybe it only seems that way until you think it through. I wouldn't be too quick to assume that a pain-free natural order is compatible with a world that has beings like us in it. And although I have no doubt that you'll scoff at this, I've always been struck by something that the explorer David Livingstone wrote about his near-death from a lion attack. "The shock produced a stupor similar to that which seems to be felt by a mouse after the first grip of the cat. It caused a sort of dreaminess, in which there is no sense of pain nor feeling of terror." Many animals seem to go into a kind of trance when they are finally captured by predators, like that water buffalo you mentioned. It's as if they get a reprieve from the pain at the end. I don't know if there's much scientific basis for this, but there may be a lot we don't know about what we interpret as animal suffering.

OSCAR: You're right about the scoffing.

SOPHIE: It looks to me like there are only so many answers available for the problem of animal suffering, and they're basically the same answers that apply to human suffering. One is to claim that animal suffering isn't real, but just an appearance. The other is to claim that animal suffering is a necessary means to a higher end. But for that approach to be redemptive for the animals doing the suffering, that higher end has to be something that includes them. David's idea that the food chain, with all of its brutality, is necessary in a world with beings like us, seems to entail that the greater good promoted by animal suffering is *our* good, not theirs. So it treats their suffering as a means to our ends. That's hard to square with perfect benevolence, I have to admit.

OSCAR: Who has said that suffering isn't real? I think I'd remember it if David had tried that approach.

DAVID: I didn't.

SOPHIE: No, you didn't. But that's an approach that has been tried in some non-Western religious traditions. In the Advaita Vedanta philosophy of India, the entire visible world, along with everything in it, including pain and pleasure, are called *maya*, which means "illusion." It's like a dream that we are caught in, one that sometimes becomes nightmarish. If we could wake up, we would discover that we have been with God the whole time and the suffering was only part of the dream. From this perspective, the only *problem* about suffering, animal or human, is that we believe in it.

OSCAR: If you really believed that, you wouldn't spend much energy trying to do anything about suffering. Instead, you'd spend all your time trying to wake up from the dream, which is basically a selfish pursuit. I think this would lead to the worst kind of indifference.

DAVID: I have to agree with Oscar, for a change. I respect Eastern religions for a lot of things, but I couldn't buy into a philosophy that denies the reality of the world altogether, if that's really what they're saying.

SOPHIE: That's understandable, but I think it's important to recognize that there are other ways of looking at this. Buddhism was

itself in part a response to this, and it emphasizes infinite compassion, among other things.

OSCAR: But unless I misremember my survey of religions course, Buddhism doesn't talk about a God, so it's hard to see how it can help theism with the problem of suffering.

SOPHIE: True, Buddhism views a personal God as a symbol that is likely to trap us, so it prefers more impersonal concepts, such as *dharma*. But *dharma* is still a kind of intelligent order in the world, which is a lot like what theists talk about as "God's will."

OSCAR: You still end up with questions about why God would permit us to be stuck with such a pain-ridden dream or illusion. I suppose you could say that something like an intelligent order doesn't have to be benevolent in the sense that we have been discussing, but then that would mean that to solve the problem of suffering, we still have to pull back from theism as it's usually understood, which was my point in the first place.

SOPHIE: Fair enough, Oscar. I just wanted to bring up the point that it's possible to deny the reality of suffering. There's a lot more to it, in Advaita Vedanta and Buddhism, but I just wanted to throw the idea out there. It's not only found in Eastern philosophies either. Christian Science is a fully Western movement that claims that illness and suffering are illusions. In fact, Descartes argued that only human suffering is real; animals only appear to suffer. He was no Eastern philosopher.

OSCAR: What possible reason could he have had for such an absurd claim? Didn't he ever step on a dog's tail and see what happens? How could anyone possibly think that the dog's pain is any less real than ours?

SOPHIE: He didn't think that animals have souls, and without a soul all you have is a biochemical machine.

DAVID: I don't know whether dogs have souls or not, but I would never claim that they can't feel pain.

OSCAR: I agree with Descartes that dogs don't have souls, because I don't think there are such things as souls. So I obviously don't think

souls have anything to do with feeling pain. Since they don't exist, but pain clearly does.

SOPHIE: I can see that the denial of the reality of suffering, for us or other animals, isn't going to get us very far toward a solution to the problem of suffering.

DAVID: I agree, which is why I didn't even try that approach.

SOPHIE: There's another approach that you haven't considered. Human beings needn't be the only beings whose free-will decisions have consequences that cause suffering.

DAVID: What do you mean?

SOPHIE: So far, the discussion has proceeded on the assumption that only God, humans, and other animals are involved, and all else is the blind forces of nature.

OSCAR: Whom else did you have in mind? Ancient alien astronauts?

SOPHIE: I didn't have anybody specific in mind, but I wanted to toss in a reminder that there could be other orders of free-willed beings who are capable of mischief, either intentionally or unintentionally, but are beyond our ability to perceive directly.

OSCAR: We're talking about angels and demons, right?

SOPHIE: That's what they're called in some places, but they have other names.

OSCAR: Wow. I had no idea it would come to this. So you're blaming natural disasters and diseases on invisible bad guys? This is a truly desperate argument.

DAVID: I wouldn't expect anyone to accept an argument like this, unless already convinced of a particular theistic worldview. Not even all theists would buy it. But it's not utterly crazy. After all, if it's possible that God exists, it couldn't be impossible for other spirit beings to exist. And even though I don't want to turn this into a discussion of specifically Judeo-Christian ideas, it is part of that tradition that there are "powers and principalities" in this world that aren't friendly to humankind. We can even imagine that their original job was to

protect us from natural evils, but they failed or defaulted, and we are suffering from neglect as much as from outright malice. It is, after all, part of that tradition that we live in a *fallen* world, and there are various ways to understand that fallenness.

SOPHIE: The point is simply that it's a possibility—one that has been recognized in many religions—that we are victims of personal evil in ways that most of us don't suspect. It's at least worth a mention.

OSCAR: I'll grant it as a bare possibility, but not as a hypothesis that makes any serious difference to this discussion. To put it bluntly, if the only way the problem of suffering can be solved is to blame some of it on us and the rest on demons, don't expect the argument to win the hearts of many people. And even if I could somehow accept all that mythology—which I can't for even a second—it still leaves the suffering of animals untouched.

DAVID: No, I know it doesn't help with that problem in any obvious way. All I can say is that this is a point at which my faith kicks in. I find the arguments for God's existence convincing enough that I'm willing to accept that he has made some provision for suffering, both ours and all other suffering. I know that this won't begin to be convincing to a skeptic, but I still think the existence of suffering falls short of a disproof of God's existence.

OSCAR: And I still think that the sheer quantity of suffering, and the utterly random distribution of it, is more at home in a universe with nobody perfect in charge, or even nobody at all in charge, than it is with a universe ruled by an omnipotent, benevolent God. It may not be a disproof but it's more than reasonable.

SOPHIE: I don't want to get us sidetracked into a different issue, but I know that there are some creationists who, in a way, accept your view, Oscar.

OSCAR: I seriously doubt that I have much in common with creationists.

SOPHIE: You'd be surprised. As I say, some of them have argued that the world must be relatively young, with human beings and all other creatures created at pretty much the same time, because the alternative is too brutal to attribute to God's design. The alternative,

of course, is the evolutionary view, according to which animals lived and killed each other for millions and millions of years before humans ever arrived to start sinning. They, like you, can't reconcile all that suffering with a benevolent God, so they reject it.

OSCAR: They have the right understanding, but they reach the wrong conclusion. The reasonable way to read the evidence is not to deny evolution and imagine that the world is only a few thousand years old; it's to deny that a benevolent God is behind it.

DAVID: I know you don't like any argument that appeals to angels or anything of the sort, but an explanation that involves them is still an option.

OSCAR: So now you're going to blame millions of years of suffering and death in the animal kingdom on fallen angels?

DAVID: In a word, yes. Just try to keep an open mind about it. I said I don't want to turn this into a Bible discussion, but just indulge me for a minute. Adam and Eve sinned, but their sin wasn't entirely spontaneous. They were *tempted* first.

OSCAR: Right. The devil made them do it. Or the talking snake.

DAVID: Maybe the talking snake is just a symbol of some kind of intelligent being. We can't blame that being for their disobedience, because temptation can be resisted. They didn't resist, and that's their fault. Despite the "devil made me do it" cliché, temptation doesn't make anyone do anything.

OSCAR: Whatever. What does this fairy tale have to do with animal suffering?

DAVID: I'm just using it to make the point that the Bible does give us clues to the notion that Earth was a kind of battlefield long before we got here. We're not told how long, but we can imagine it was a very long time. So if you can accept that as a possibility, you can see that the entire fabric of nature might have been disrupted by this warfare, leading to death and suffering everywhere. Then when we showed up, it continued and we added to it. Natural evil, from this perspective, is really just more personal evil.

SOPHIE: That's interesting, David, but it means that the original plan must have been for a very different kind of natural world, without the kind of food chain that we know about.

DAVID: Yes, it does entail that.

SOPHIE: It's a little hard to understand what that could have actually looked like. If God wanted evolution to occur—you said you're not a creationist—there had to be reproduction and death. Without reproduction there's no evolution, and without death there's no natural selection. And also, as you already pointed out, a world with reproduction but no death would quickly run out of resources. Evolution absolutely requires death.

DAVID: But it doesn't require painful death.

OSCAR: Death is death, and even if I grant you, for the sake of the argument, that the world was supposed to have only painless death in it, that would still be a lot of suffering.

DAVID: Maybe not. Death is an evil for us because we are capable of having hopes and plans for the future. Death harms us because we're the kinds of beings who can conceive of our future and care about it. I think other species just live in the moment. As long as their moments aren't filled with suffering, I don't see how it could matter to them when their lives end.

SOPHIE: Interesting. So on this view, death is an evil for us, but not for other animals; so an evolutionary world could have death but not pain in it, without being full of pointless and unredeemable evil. Is that how you see it?

DAVID: That's the best I can do with it. I think it's at least possible that the pain aspect of the world before human beings arrived was collateral damage from the struggle that was going on here.

SOPHIE: It's still pretty hard to see how you could have an animal kingdom without any predators at all, and where there are predators there's pain, not just death. And it's very hard to see how the existence of predators can be blamed on the aftereffects of celestial war.

OSCAR: It's just too much, David. Look at all the weird supernatural baggage you've had to drag in to address the problem of suffering:

Not just afterlife, but now warring angels who invented pain. I don't care whether the Bible gives hints or not; this goes way beyond any kind of reasonable evidence.

DAVID: Believe me, Oscar, I know exactly what you mean. Sophie brought up the possibility of other beings with free will; I don't think I would have, knowing exactly what your reaction would be. But if, for the sake of the argument, you grant the existence of God, what reason could you have to insist that he is the only immaterial personal being? What makes it absurd that he created others? You know, belief in spirit beings is pretty universal in human cultures.

OSCAR: So are lots of superstitions. They don't add any credibility to your argument.

DAVID: If God is possible, so is the rest of it. I understand your resistance to these ideas, but resistance isn't refutation. You're claiming that the reality of suffering, including animal suffering, makes it *unreasonable* to believe in God. I freely admit that it's hard for us to wrap our minds around the reality of suffering. I'm not insisting that warring angels are the only possible explanation, but I do think the reality of other immaterial beings with free will isn't inherently less reasonable than the existence of God. I can live with that.

OSCAR: I'd rather not.

DAVID: Let's get back to the basic principles we started with. Your argument grants that God is perfectly benevolent and loving, right?

OSCAR: Yes, it does. The whole point is that all the suffering in the world—some of it built right into the evolutionary fabric of nature—counts as evidence against the existence of such a being.

DAVID: Right, I get it. From where I stand, however, if I *really believe* in God's love and benevolence, if I really take it seriously, along with omniscience, then I'm also able to believe that he has made some provision for the redemption of all suffering. I don't have to understand what it is or even what it could be; I just have to trust God to have it covered.

OSCAR: No, you don't have to. You can wake up and realize that suffering is the best reason of all not to believe in God.

SOPHIE: I think we're at an impasse. I think anybody would grant that unbelief is a reasonable response to the suffering in the world. As David said, lots of people do lose their faith over this, and I don't think he wants to say they're all unreasonable.

DAVID: That's right, I don't want to say that.

SOPHIE: But he's correct to point out that if you take omnibenevolence and omnipotence seriously, it's also *not unreasonable* to believe that God has some way of redeeming all of it, including animal suffering, especially if there are other grounds for believing in God. I think that's as far as we can go with it.

Chapter 6

Miracles

Later that day they meet in the main quadrangle of the campus. Oscar is bemoaning his prospects for passing a math exam that is scheduled for next week.

OSCAR: It's just too much material to cover on a single exam, and it's all about proofs and formula derivations. The prof says we're supposed to be able to reproduce the key parts of the proofs for all the main theorems of the course. It'll take a miracle just for me to remember what the theorems are.

DAVID: A miracle? Another foxhole conversion! Sooner or later, even the atheist finds himself in enough trouble that he prays for a miracle.

OSCAR: Don't start, David. It's a figure of speech, meaning that the task is *impossible*, just as miracles are impossible.

DAVID: I suppose I shouldn't be surprised to hear you say that. I've avoided mentioning miracles in our discussions about God, because I didn't think there would be any way you'd take them seriously.

OSCAR: And you were right to avoid the subject. There's no point talking about impossible events as evidence for an impossible being.

DAVID: I'm not sure why you say that miracles are impossible or what you even mean by it.

OSCAR: What's hard to understand? "Impossible" isn't such a difficult concept, is it?

SOPHIE: It can be a little tricky. There are different kinds of possibility and impossibility, and in ordinary conversation we tend to throw the words around loosely. The meaning is usually clear enough in context, but it may not be in this case. Are you saying that miracles are inconceivable?

OSCAR: What do you mean by “inconceivable”?

SOPHIE: It means that the idea itself doesn’t make sense, like a four-sided triangle. Inconceivable means logically or conceptually impossible. If you say it’s impossible to draw a four-sided triangle and it’s impossible to walk through walls, you’re using the word “impossible” in two very different ways. Walking through walls may be impossible, but we can conceive of it. We know what would count as walking through a wall, but nothing could count as a four-sided triangle.

OSCAR: I see. You like to make things difficult, don’t you? Well, I guess I’m not saying that miracles are logically impossible, since I can imagine things that would count as miracles. I’m just saying they can’t happen.

DAVID: Just for the record, Oscar, what sort of thing do you have in mind as something that would count as a miracle?

OSCAR: You know, something *miraculous*! Suppose you were to float slowly up in the air a foot or so, right in front of me, and hover there for a minute or so. That would be a miracle. Sophie’s example of walking through walls would count too. Both are impossible.

SOPHIE: Why do you say that levitation is impossible?

OSCAR: Have you ever seen anyone levitate?

SOPHIE: I can’t say I have, but so what? Am I supposed to believe that things are impossible unless I’ve seen them happen?

OSCAR: Of course not. The reason why you haven’t seen it is because people don’t levitate. Levitation is a violation of those laws of nature that we’ve been talking about. That’s what makes it impossible.

DAVID: The laws of nature describe what happens in the natural order. We’re discussing the possibility of a supernatural reality that

can intervene in the natural order. Obviously the laws of nature don't describe that. But they don't say it's impossible. They have nothing to say about it, in fact.

SOPHIE: So are you defining miracles as supernatural interventions in the natural order, David?

DAVID: Yes. In fact, I think the word "violation" is a little bit misleading. I know we're going to keep using it to talk about miracles, because everybody uses it, but the word makes it sound almost like a kind of disobedience.

SOPHIE: Don't things obey the laws of nature?

DAVID: In a sense, yes; they conform to them. Better yet, they are predictable from those laws and are explained by them. The laws of nature explain why water expands when it freezes, so if you understand them, you can predict what will happen. Miracles are events that simply aren't explainable or predictable in that way. If there is a being outside of nature who can inject, so to speak, causes into the natural order, the effects would fail to be explained by the laws of nature. They'd look like violations, yes, but they'd be effects of causes from something outside of, and not subject to, those laws.

SOPHIE: That would mean that the natural order isn't causally closed.

DAVID: If by that you mean what I think you mean—that everything that happens in nature isn't caused by something in nature—then yes, that's exactly what I mean.

OSCAR: Ah, but science tells us that nature *is* causally closed. That's the whole point about science.

SOPHIE: I don't think so, Oscar. The claim that nature is causally closed is a philosophical claim, not a scientific one. Science tells us what causes what *within* the natural order, but it stops there.

OSCAR: And so should everyone, philosophers included.

SOPHIE: Um, that's a philosophical claim too.

OSCAR: Get off my case! Anyway, if nobody minds, I'm going to continue to call any *alleged* miracles *alleged* violations of the

laws of nature. I say “alleged” because of course they don’t really happen.

DAVID: I think there are different kinds of miracles, and not all of them have to be flat-out violations of laws of nature. For example, when my uncle died in a car crash, my mother at home woke up out of a sound sleep at the exact time when the accident took place. You hear about things like this, and there does seem to be something miraculous about them.

OSCAR: Not to me, there doesn’t. They’re extraordinary, yes, but that doesn’t make them miraculous in my book. They’re just striking coincidences. We remember them, but we forget all the times someone wakes up in the middle of the night and nothing unusual happened.

DAVID: I wouldn’t expect you to be convinced by that sort of case, but from the standpoint of a believer, it could show God’s involvement in human affairs.

OSCAR: Every week someone wins the lottery, and whoever wins it was very, very unlikely to win. But it happens. Is it a miracle? It may seem like it to the winner, but is it? Nope.

DAVID: There’s another aspect to miracles that we haven’t mentioned yet. Whether or not they involve violations of laws of nature, it’s also essential that miracles be *meaningful* occurrences. They have to make sense as *signs* of God’s activity. It’s not enough for something just to be a weird or unlikely event.

OSCAR: You’re begging the question, David, if you’re going to use miracles as evidence for God’s existence, which I thought was the whole point of this discussion.

DAVID: I simply mean that miracles, in addition to being extraordinary, should also be the sorts of things that make sense as acts of God.

OSCAR: That seems pretty subjective to me. In any case, my view is that a merely extraordinary event that doesn’t violate laws of nature isn’t a miracle, no matter how meaningful it looks through the eyes of faith.

SOPHIE: Let's get clear on what these laws of nature are and how we know about them.

OSCAR: I thought we'd already done that. The laws of nature are the rules about how things happen in nature. They describe the uniformities in nature; I think that's how you put it. We know about them by having made careful observations over long periods of time. It's the job of science to discover them and then show how they explain the world around us. We talked about this.

SOPHIE: We did, but now let me ask another question. Do the laws of nature describe what *does* happen or what *must* happen in nature?

OSCAR: I don't understand the question. If the laws of nature say that things happen in a certain way, then that's the way they have to happen, in this universe at least.

SOPHIE: That's the point of my question. When you say "in this universe at least," you leave room for the possibility of other universes with different laws, where things happen differently.

OSCAR: I suppose so. What of it?

SOPHIE: It means that when you say that levitation is impossible, you mean that levitation doesn't happen in any universe that has the same laws of nature that ours has. But we already talked about the fact that there's nothing strictly necessary about the laws of nature we have, and that shows that there are possible worlds in which levitation doesn't violate any laws of nature.

DAVID: But levitation wouldn't be a miracle in those worlds, Sophie. Oscar is right to insist that miracles—at least the kind of miracles he's interested in—are violations of the laws of nature in this world, because that's what makes them evidence for something supernatural. If we think of these possible worlds in terms of their natural laws, then the occurrence of things that look like causal intrusions from somewhere or something else is evidence that there's more to those worlds than just nature.

SOPHIE: So, setting aside the "meaningfulness" condition for the moment, if something is observed to happen that appears to violate

known laws of nature, would that be enough to convince you that it's a miracle, Oscar?

OSCAR: That would be a necessary condition for me even to consider it as a candidate for a miracle. But if I'm honest, I'd be more likely to think it was evidence that we got the laws of nature wrong and need to amend them to account for the thing we just observed. You know, Newton's laws predicted that the orbit of Mercury should be one way, but observations showed slight irregularities in it. But nobody thought Mercury's orbit was miraculous. Instead, it was evidence for a change in the so-called law that says light always moves through space in straight lines. Things like that are called anomalies, not miracles, and that's how science makes progress. That's why I have a hard time believing in miracles.

SOPHIE: That's a good example. The orbit of Mercury was a violation of Newton's laws, but Einstein showed that it had a different kind of uniformity, conforming to the amended laws in relativity theory. When we were talking about laws, I made the point that they are mathematically expressible. That means we can use mathematics to predict what we will observe under certain conditions. Einstein predicted Mercury would be observed to be in a certain position during a solar eclipse—when we could observe it close to the sun—and decades later he was shown to be right.

OSCAR: What does that add to what we've already said?

SOPHIE: It's the essence of miracles that they are not mathematically predictable. In this respect, they are more like individual human decisions and actions.

DAVID: But they're not just anomalies either. They also have to make the kind of sense that actions and decisions make.

OSCAR: So let's get down to particulars. What sort of things are we talking about? Water into wine?

DAVID: There are plenty of miracles described in the Bible, including that one; but I doubt you'd accept the testimony of the Bible on this.

OSCAR: So give me something better.

DAVID: There have been miraculous cures of physical illnesses in modern times as well as in Biblical times.

OSCAR: You mean people throwing away their crutches and saying, “Thank you Jesus”? Is that the best you can do?

DAVID: I don’t get the impression you’ve looked into this sort of thing very deeply. The Catholic Church maintains an office at Lourdes whose purpose is to authenticate claims of miracle cures. They require certified medical histories and confirmations of cures. They end up rejecting the great majority of claimed miracle cures, meaning not that the rejected claims are all phony but that they didn’t have enough documentation. But even with all that scrutiny there are still some that *can* be authenticated.

OSCAR: Even I wouldn’t say that all of these are deliberate frauds, but just because some scientists can’t explain the healings—and I’ll grant you that they have legitimate scientists doing the investigations—it doesn’t follow that these are authenticated miracles. It just means they’re unexplained, and as I said before, ignorance isn’t evidence. A lot of these so-called miracles can be just as easily explained as spontaneous remission or psychosomatic effects.

SOPHIE: How is that explanation supposed to work?

OSCAR: Spontaneous remission of cancers and other diseases has been recognized for a very long time, so it’s not as though I’m concocting some new category of phenomena to bolster my argument. It makes more sense to think that an amazing healing is psychosomatic, before resorting to a supernatural explanation.

SOPHIE: So in your view spontaneous remission is a natural explanation?

OSCAR: Of course. It doesn’t involve any gods, angels, or fairies.

DAVID: I thought the essence of a natural explanation is that it explains in terms of natural laws instead of in terms of the actions of agents, divine or otherwise.

OSCAR: That’s right. No gods, angels, or fairies, and no human medications either.

DAVID: So there are *laws* of spontaneous remission?

OSCAR: Of course. The activities that go on in the human body include healing, and they have their own laws.

SOPHIE: David's question is about spontaneous remission in particular. That ordinary healing is subject to biological laws isn't really in question, but you're claiming that healings claimed to be miraculous are really cases of spontaneous remission, which you're claiming is natural, not supernatural. Since you insist that gods, angels, and fairies don't explain it, you must think there are laws of nature involved.

OSCAR: Right. So what? I said some of these healings are psychosomatic too.

DAVID: That's okay. It's pretty well documented that what people believe plays a role in sickness and health, although there are still plenty of questions about how it works. Some of the Lourdes cases, for example, involve the sudden disappearance of advanced and lethal cancers. Psychosomatic?

OSCAR: Sure, or just plain spontaneous remission. It happens.

DAVID: It happens, but what's "plain" about it? I think the problem that both Sophie and I have is that you act as if calling a given healing "psychosomatic" or "spontaneous remission" *explains* it. But it doesn't. These things are anomalies, and nobody has any natural explanation of why they happen or why they don't happen.

OSCAR: Maybe so, but at least it doesn't involve anything supernatural.

DAVID: No, it doesn't. But the fact that it's not a supernatural explanation doesn't make it a natural one. It's not an explanation at all. The supernatural explanation may not be to your liking, but at least it's an explanation.

OSCAR: Is it really? I'll turn the tables then and ask for laws of supernatural healing. Are there any? If not, I don't see how you have an explanation.

SOPHIE: So the real question is whether explanations have to appeal to laws.

OSCAR: Well, that's what you demanded of me, so why not?

SOPHIE: I think the idea is that *natural* explanations have to appeal to laws, not that all explanations do. We already talked about the two kinds of explanations: natural and personal. Natural explanations, which mention only impersonal natural causes, are the ones that involve mathematical laws. But personal explanations, in terms of purposes, beliefs, and desires, aren't lawlike in that way. So if supernatural healing is from a personal source, such as God, then we can't expect it to be lawlike.

OSCAR: But it still has to make sense, in terms of purposes and all the rest of it, right?

SOPHIE: Right. If it doesn't, it's not much of an explanation.

OSCAR: Then tell me this: What sense does it make for God to heal one person in a million—or whatever long-shot number it is—who prays for healing, but not heal another, who prays just as much or more?

SOPHIE: Good question. Do you have an answer to that one, David?

DAVID: Not the kind of answer that will satisfy Oscar, I think. There's no way to answer a question like that without getting into theology pretty deeply, and I don't think that really works when we're still debating God's existence. But I'll just say this much: The way I understand it, miracles are supposed to be recognized as acts of revelation, or ways that God chooses to reveal himself to us. They're not *techniques* of some sort, or *methods* of treating illness. We're not supposed to think of God as a kind of vending machine, where we insert a prayer and get a healing. As for why God chooses to reveal himself in certain cases but not others, I don't think anybody pretends to know. But children don't understand most of the decisions that their parents make either. That doesn't mean the parents had no reasons. The gap between our understanding and God's reasons is bound to be much larger than the gap between what kids can understand and why their parents make the choices they make. It's really the same point that I made when we were talking about the problem of suffering. In a way, it's part of that same problem. As long as we can make sense of the idea that God uses miracles to

reveal himself to us, we can't really expect to understand how he chooses when to do it.

OSCAR: You're right, David, that answer doesn't satisfy me at all! For one thing, the sheer unpredictability of these so-called miraculous healings means they're no different from ordinary physical anomalies, so I'd just as soon call them that and be done with it.

SOPHIE: Again, you're using a word, "anomaly", as if it explains something. But an anomaly is something that's unexplained, because it doesn't fit the laws. There are no "ordinary" anomalies. The supernatural explanation is an explanation, even if it isn't the kind of explanation that makes the healings predictable. But that's the way it is with personal explanations. They make sense of something without making it utterly predictable.

OSCAR: But the actions and decisions aren't utterly *unpredictable* either. If you know I'm going to the store a mile away and I want to get back soon and I have a car, you can predict that I'll drive rather than walk to the store. Sure, I'll grant that it's not inevitable that I'll drive, but it's a good bet. The choices of rational persons are at least *somewhat* predictable, but so-called miracles really are utterly unpredictable. That's why I'd rather just write them off as anomalies.

DAVID: Again, you're neglecting the point that miracles are acts of revelation and revelation is a form of communication.

OSCAR: So what's the message? "Just pray and you'll be healed"? If so, it's a lie.

DAVID: I think the message is something more like, "I'm here, and I care."

OSCAR: If God cared, he'd do more than heal one person in a million.

DAVID: I think he does do more—much more; but what he does isn't just healing physical illnesses. Healing miracles aren't the only form of revelation, after all.

OSCAR: Maybe not, but they are the most discussed kind of miracle. And while we're on the subject, do you have any answer to the question of why certain kinds of healing miracles *never* happen?

DAVID: You mean, why doesn't God heal amputees?

OSCAR: I guess you saw that one coming. But what about it? Doesn't it seem a bit odd to you that no one ever reports a restored limb?

DAVID: You know, this used to bother me, but there's a way of making sense of it. Healing is itself a natural process. That is, it's natural for our bodies to heal, but the healing process has limits. For example, it works at a certain rate. If the disease process works at a faster rate, we won't heal because the disease process overwhelms the healing process. Our immune system can combat cancer cells, for example, but if the cancer cells start to proliferate and mutate at a fast rate, the immune system just can't handle it and the result is cancer. But in cases of miracle healings, it's as if the natural healing processes are enhanced and accelerated to a level that goes beyond anything we can understand. It's as if the natural processes have been "upgraded" to work at a *supernatural* level of effectiveness.

OSCAR: What does this have to do with amputees?

DAVID: I'm getting to that. Let me give an example that I read about. One of the approved miracles at Lourdes was a case of a woman, Joachime Dehant, who had a massive gangrenous ulcer on her leg for *ten years* before her visit to the shrine. This was a horrendous infected mess, ten or so inches long, constantly oozing. It caused her foot to become twisted, and her general state of health was frail. She was from Belgium, and there was a record of failed treatment there. After a few baths in the waters at Lourdes, the ulcer was gone, leaving nothing but a clean scar. The flesh of her leg was normal, and her foot returned to normal. She went back to Belgium and lived another thirty years. This is what I mean by a natural healing process taken to a supernatural level. Do ulcers ever heal? Yes, though slowly. A massive ulcer that has resisted all treatment for ten years is something that has clearly overwhelmed the natural healing resources of the body. Those resources were somehow augmented, and the result is a healing of the same general *kind* as what we'd call natural, taken to a supernatural level. But when it comes to amputations, there is no natural healing process—in humans anyway—to begin with. So my idea is that in healing miracles, God works with

the natural—which he endowed us with anyway—and reveals the supernatural.

OSCAR: That's an ingenious explanation, but I'm not sure it fits all the things that people call miracles.

SOPHIE: I'm pretty sure it doesn't. I know that there are plenty of stories in ancient religious literature about therianthropy, which is the term for people turning into animals. You couldn't call that kind of thing a case of natural laws being supernaturally upgraded.

DAVID: I agree. When it comes to those kinds of miracles, I'm as skeptical as Oscar. I think it's significant that the miracles described in the New Testament *aren't* like that, but I don't want to turn the conversation into comparative religion. I only wanted to explain my thinking about the amputation question.

OSCAR: I don't think we're getting anywhere. What about other kinds of miracles, other than healings? If you have any examples of those, we could sidestep the whole issue of spontaneous remission and psychosomatic effects.

DAVID: Okay, since you mentioned levitation before, I couldn't help thinking of the case of Saint Joseph of Cupertino, whose levitations were witnessed by a lot of people.

OSCAR: Oh really? When was this? I would have thought everyone would know about it.

DAVID: It was in the seventeenth century, in Italy. He was a Franciscan priest, and they say he would sometimes spontaneously levitate during Mass, to the point that his monastery brothers would lock him in his cell to prevent the disruption that he was causing. He was observed by a lot of people over the years, including skeptics.

OSCAR: Oh, I'm sure they were very skeptical. Did any of this take place under controlled conditions? I seriously doubt it. What you're telling me boils down to this: There exists some testimony to the effect that this Saint Joseph of Cupertino levitated. I've never doubted the existence of *testimony* of miracles. The question is, why should I believe any of it?

DAVID: Why shouldn't you believe it?

OSCAR: For one thing, I didn't see it. Seeing is believing, you know.

DAVID: So when *you* see something, it's "controlled conditions" but when others see it, it's not? It doesn't take a trained observer to recognize levitation.

OSCAR: It takes a trained observer to know whether there's some kind of trickery involved. Magicians trick people every day.

SOPHIE: No they don't; not really. What magicians do is a kind of entertainment, and the people who watch them suspend disbelief for a while, just as they do when watching a movie.

OSCAR: That doesn't change the fact that there are tricks that people can use to fake things like levitation, and ordinary people can be fooled. I know a little bit about this; it used to be a hobby of mine. If I were there, I'd want to do some tests to make certain of what I was seeing. I'd want to make it as objective as possible.

DAVID: What makes you think the people who witnessed Joseph of Cupertino weren't objective?

OSCAR: It was four hundred years ago. People were more superstitious then.

DAVID: I really don't see what this has to do with superstition. People in the seventeenth century knew just as well as we do that levitation isn't something we expect to see. I don't see any reason to think that they were less objective than we are when it comes to something like this. And I don't think there's any reason to think that they had never heard of trickery either.

OSCAR: This was at the beginning of the scientific era. The scientific method wasn't widely appreciated, especially in monasteries! It still isn't widely appreciated, in fact.

SOPHIE: Are you saying that someone would have to be a scientist to be a credible witness of levitation?

OSCAR: I'm saying that for something as extraordinary as levitation, a very high level of evidence is called for. Evidence from some

written reports from four centuries ago, of events witnessed under completely uncontrolled conditions, just doesn't cut it.

DAVID: In other words, you raise your standards of evidence for anything that doesn't fit into your worldview. No offense, but that doesn't sound like a very open-minded way of looking at things. A while ago you said that violations of the laws of nature are never observed to happen. Now when I tell you that they have been observed to happen, you complain that the observations weren't valid.

OSCAR: I make no apology for insisting that things that don't fit into my worldview, as you call it, should have more evidence than things that do. My worldview is the product of centuries of careful scientific observation and testing. That makes it different from the worldview that it replaced, which was the product of millennia of wild theorizing mixed with theology and erratic testing, if any. If you tell me that you just saw a car with a flat tire out in the parking lot, I'm not going to ask for more evidence because I have no reason to doubt it. You saw it, and that's good enough for me. Cars get flat tires sometimes, and I have no reason to doubt that you saw one. But if you tell me you saw an alien spaceship landing in the parking lot, I'm going to want more evidence because I have plenty of reason to doubt it. You would too; anybody would. If you want to call that a product of my worldview, go ahead. I just call it common sense.

SOPHIE: David Hume said that the laws of nature are, by definition, our best-confirmed generalizations about nature, which is why we call them laws. When the evidence for a miracle is testimony, we have to ask what is more likely—that the testimony is mistaken or that the laws have been violated. Since we know that testimony is sometimes wrong, we would always have to conclude that it's more likely that the witnesses were deceived or lying than that the laws of nature were violated.

OSCAR: Exactly. Hume was right on the money. There's nothing close-minded about it; it's just the way knowledge works.

DAVID: Then according to Hume miracles are impossible.

OSCAR: And that's what I've been saying from the start.

SOPHIE: Actually, no. It doesn't follow that miracles are impossible; it only means that we never have enough reason to believe that one has happened. But it could have happened anyway.

DAVID: So even if miracles happen, we shouldn't believe in them. That's a wonderful philosophy.

OSCAR: It's just the basic principle that extraordinary claims require extraordinary evidence.

DAVID: I have no problem with that, really. But when multiple witnesses observe something, that really is extraordinary evidence! I think you're using the "extraordinary evidence" principle to move the goalposts so that *impossible* levels of evidence are required. I agree that levitation is extraordinary. If it weren't, it wouldn't seem miraculous. And if just one person witnessed it, on one occasion, in dim lighting, I'd agree that more evidence is needed. But with multiple witnesses on multiple occasions, in broad daylight, I don't see what else you could reasonably require.

OSCAR: The eyes can play strange tricks, and mass hysteria has been known to happen. Too bad it wasn't recorded on video.

DAVID: I can't believe you'd brush this off because it wasn't video-recorded in the seventeenth century!

OSCAR: I'm not blaming anyone for not being able to produce proper evidence. Under the conditions of the time, it just may not have been possible to do so.

DAVID: You know, I think even if someone got video of levitation tomorrow, you'd still claim that the video was faked.

OSCAR: Probably. After all, what's more likely—that the video was faked or that the laws of nature were broken? I'd want to know who made the video and how trustworthy that person is, for starters.

DAVID: But just the fact that he claimed to have video of levitation would make him less trustworthy, in your eyes. It's a Catch-22.

OSCAR: Anyone who offers a video like that as evidence of levitation has to expect some pretty intense scrutiny. I'm not going to apologize for that either. And while we're on the subject of levitation,

how does it square with what you were saying before about healings? You said miracle healings were natural processes taken to a supernatural level, but is levitation a natural process?

DAVID: No, I guess that idea doesn't really fit in this case.

SOPHIE: Maybe it does. We now know that we're constantly being bombarded by air molecules from all directions. Because that movement is random and involves huge numbers of molecules, it all averages out and we just stay earthbound. But if those air molecules could all be orchestrated to strike us from one direction—from underneath—we'd rise right up. It's within the range of natural possibility, but it's just extremely, staggeringly improbable. You could say it's supernaturally improbable.

OSCAR: Very creative, but I'll stick with Hume on this one. If the alternative is believing that something supernaturally improbable happened, I'll go with good old-fashioned human trickery and gullibility.

SOPHIE: It keeps coming back to the trustworthiness of persons. Oscar, you don't trust the seventeenth-century eyewitnesses, and you wouldn't trust a twenty-first-century video unless you could verify the trustworthiness of the people who made it. But to do that you'd have to rely on the testimony of other people about their trustworthiness. Ideally, you'd want to have direct personal knowledge of the person who made the video, right?

OSCAR: Ideally, I'd want to *be* the person who made the video. Then I'd know that I didn't fake it.

SOPHIE: Then it comes back to something utterly subjective: your trust of your own private judgment. Isn't this the exact opposite of scientific method?

OSCAR: Not at all. It's an important part of the scientific method that evidence is presented by a member of a community of scientists who trust one another's integrity. Without that, the whole thing would crumble.

SOPHIE: But one of the ways that community remains intact is by deciding not to trust those whose findings don't fit in.

OSCAR: That's as it should be. If those findings have any merit, they'll eventually force their way in, by being recognized by more and more people. Eventually they make it into the domain of accepted scientific knowledge. There are plenty of examples of this, such as continental drift.

SOPHIE: Fair enough, but it does seem that with miracles, by their very anomalous nature, there will always be grounds for suspicion because they're not repeatable on demand. They're not *law-like*. And scientific method just isn't set up to deal with inherently non-repeatable phenomena, even if they're as real as rain. So it's not reasonable to say that they're not real *because* science can't really study them.

OSCAR: You may be right, Sophie, but it still leaves us with the result that miracles can't prove God's existence.

DAVID: No, it leaves us with the result that miracles can't provide scientific evidence for God's existence, which is a different claim. Miracles, by defying scientific explanation while still being meaningful, point to something personal and supernatural. That's a different kind of evidence, that's all. I'd like to remind everybody that scientists didn't discover the laws of nature just by observing things and taking notes. They observed things and disregarded what didn't fit into uniform patterns.

SOPHIE: So you're saying they filtered out what didn't fit?

DAVID: Of course. They're looking for uniformities, and if 98 percent of what they find fits a particular pattern and the other 2 percent doesn't seem to fit any pattern, they just write off that 2 percent as anomalous. It's not as though things that don't fit the laws are never observed; they're mainly just ignored.

OSCAR: As they should be. There are always going to be data points that don't fit the curve.

DAVID: Sure, I'm not saying there's anything wrong with this method. If you're trying to work out what the laws are, then you absolutely have to work with the data points that *do* fit the curve. But what you shouldn't do is pretend that the other 2 percent never happened. Miracles have always been reported, as they still are, and

the fact that they don't fit the curve doesn't justify claiming that they didn't occur.

OSCAR: It's crazy to claim that whenever we get anomalous data we should think a miracle happened.

DAVID: And I agree. As I've already said more than once, there's more to a miracle than just being anomalous. I'm just saying that when we have the kind of *meaningful* anomaly that makes sense as a revelatory act, we shouldn't reject it by saying that such things are *never* observed.

SOPHIE: We've come full circle. I'm going to say that miracles don't provide the kind of evidence that would convince a skeptic, but for those who already have a belief in God, they tend to confirm it.

OSCAR: I'm not so sure about that. Either something is evidence or it isn't. It shouldn't matter what you already believe. That's what objectivity is all about.

SOPHIE: But you already got rid of that when you said that extraordinary claims need more evidence than ordinary claims. That means that evidence *does* depend on what you already believe, because what counts as extraordinary depends on what you already believe. It's your *worldview* that tells you what's ordinary and extraordinary.

OSCAR: I still don't see how we can get around the point that evidence ought to be evidence for anyone. That's the heart of objectivity, and I believe in objectivity, not relativism.

DAVID: You know, Oscar, I sometimes get the impression that you think that if people were really rational, they would just look at the evidence and agree about everything.

OSCAR: I wouldn't say that, David. Rational people can disagree about things, because they come to a question with different information or different experiences—which comes to the same thing. Sometimes there are things that get in the way of their proper appreciation of evidence too. But I do think that, in principle, the proper use of reason ought to tend to decrease the disagreements between people. If that weren't so, the exchange of arguments, the very thing we've been doing, would be pointless. It's an ideal, of

course. No one is perfectly rational—except me—and no one has *all* the information—except God, who unfortunately doesn't exist.

SOPHIE: It comes down to this: If you assume that the natural order, as discoverable and describable by science, is all there is, you are also assuming that natural laws are never violated. You can't make one assumption without making the other.

DAVID: That's right. But if you don't assume that, you leave open the possibility that there's more going on than the uniformities of nature that science studies. And if you leave that possibility open, then it's fair game to talk about the evidence for miracles.

SOPHIE: We'll need to come back to the question of what evidence is and how reasonable people ought to respond to it, but not today. I'm tired, and Oscar needs to prepare to levitate his way through his math exam. Why don't we meet tomorrow morning for coffee at around 9:30?

Chapter 7

More Gaps

The next morning, over coffee and bagels, they continue their conversation. This time it's Sophie who gets the ball rolling.

SOPHIE: I've been thinking a lot about our discussions. As you may be able to tell, I've been back and forth and all over the map on the God question. David, you've done a good job offering arguments, but I find that I come at it in a different way. I'm not sure it's a good way, so I'll run it by you guys and you can tell me what you think.

OSCAR: We can always count on you to come up with something off the beaten track, Sophie.

SOPHIE: Okay, well let's start with naturalism. That's what I call a worldview, because it's an all-embracing set of ideas about what's real. So, as we've already discussed, naturalism is the view that nature is all there is, and nature is the world of things that behave in a regular, uniform way—according to laws, as we say. Those laws are mathematical expressions that represent the uniformities in nature.

DAVID: That sounds like a good definition of naturalism or materialism, I guess.

SOPHIE: I like the word “naturalism” because it emphasizes the laws-of-nature aspect, rather than just what kind of stuff there is. Anyway, discovering the laws of nature and using them to explain things in nature is what scientists do.

OSCAR: Right. Naturalism is just another name for a scientific worldview, which is what I think everyone should have.

SOPHIE: I'd say that a scientific worldview only means taking seriously what science discovers about nature.

OSCAR: What's the difference between that and naturalism?

SOPHIE: Naturalism says that nature is *all there is*, which means that it denies there is anything real that isn't part of nature and subject to the laws of nature. That claim isn't something science tells us or could possibly tell us. It's a metaphysical claim.

OSCAR: Metaphysical? Are you trying to make science spooky?

SOPHIE: No, there's nothing spooky about metaphysics. It's just a branch of philosophy. I'm just trying to point out that it's possible to take science completely seriously without being committed to the philosophical position that everything real falls into the net of what science knows or can know.

OSCAR: I don't see why we should believe in the reality of things that science can't get at, but I suppose you're about to explain why we should.

SOPHIE: I am. So really I'm going to be talking about more gaps in the naturalist worldview. I know you aren't happy with these gap arguments, Oscar, but at least I'm giving you fair warning.

OSCAR: I consider myself warned.

SOPHIE: I'll start with consciousness. Not only does nobody have an explanation of how physical things can have conscious mental states but nobody can even say what such an explanation would look like.

DAVID: Don't most people think that consciousness is produced in the brain?

OSCAR: Of course they do. I don't see what the mystery is.

SOPHIE: The mystery is that consciousness is the word that refers to things that can only be known from the inside, so to speak. Pain is a conscious state, and I know what my pains feel like. You don't. You only know what your pains feel like.

DAVID: Why is that important?

SOPHIE: Because in the natural world there's nothing else like that. If you look at my hand, it's just a physical thing out there in the world for anyone to see. But if I have a pain in my hand, you can't observe it; I have to tell you about it or signal you in some way. You take x-rays or do an MRI or any other kind of test, but all you'll get is more information about the physical state of my hand or my brain. The experiential feel of my pain is available only to me.

OSCAR: I'm missing something here. I still don't see why this is important. For once, David and I are both confused.

SOPHIE: It's important because if you think about my hand, or better yet, my brain simply as a physical thing with various physical properties, there's nothing there that would even hint that it somehow is giving rise to conscious episodes. There's nothing at all that we know about any physical things that would lead you to think they can do that.

OSCAR: Except that we know as a matter of fact that brains do give rise to conscious episodes.

SOPHIE: We know that things that go on in the brain are correlated with conscious episodes, but we're completely in the dark as to how this is even possible.

DAVID: Doesn't it have something to do with the complexity of the brain?

SOPHIE: How? What does complexity even have to do with consciousness?

OSCAR: Consciousness *emerges* from the complexity of the brain, Sophie.

SOPHIE: Does it? I can think of other cases where properties emerge, like water being a liquid even though hydrogen and oxygen are both gases at room temperature. But in those cases I can explain how the emergence happens. If you know enough about the properties of oxygen and hydrogen and about chemical bonds and all that, you can understand how you get liquid water when they are combined. Granted, our actual understanding went in the opposite order. People knew about the liquidity of water long before they knew that

hydrogen and oxygen even existed, but that's beside the point. The fact remains that if you understand enough about hydrogen and oxygen, liquid water is *just what you'd expect* when you combine them. But there doesn't seem to be any amount of knowledge you could have about neurons and brains, even in principle, that would lead you to expect that there must be conscious episodes going on. That's the gap, and it seems to me to be a pretty hard one to close.

DAVID: That's interesting. I never thought of it that way.

OSCAR: It may be interesting, but I really don't see what it has to do with God.

SOPHIE: It doesn't have anything to do with God *directly*. But it gives me some reason to doubt that naturalism is true. And that makes it a little easier to consider the possibility of something supernatural.

OSCAR: I don't see why you can't just treat consciousness as something that science hasn't figured out yet, rather than jumping to a large metaphysical conclusion. Hey, I like that word!

SOPHIE: It's because it looks to me like more than just an unsolved problem. It's hard for me to see how anything discoverable by science could close that gap.

OSCAR: People once were just as certain that science could never explain the essence of life. They were sure there must be some vital force that gives living things the spark of life. They were wrong. We now know that living things are just complex chemical machines.

SOPHIE: But that's because the concept of life can be broken down into functions, things that living things *do*. They grow, reproduce, repair themselves, use energy, and so on. From there, the rest of the job is to figure out what kinds of machines can do those things.

OSCAR: Then why did it take so long for the vital-force theory to get the heave-ho?

SOPHIE: Because until the twentieth century nobody had any very clear idea of how complex the things going on inside cells were. So it was hard to see how there could be all that machinery in there. But there wasn't any real *conceptual* gap, which is why some people were saying hundreds of years ago that living things were machines.

But back then, it was mostly conjecture. Now we can actually study the machinery. When it comes to consciousness, there's a real conceptual gap, as I've been trying to argue. It's as if consciousness *doesn't belong* in the natural order. And that at least opens the possibility that it has to be explained in terms of something outside the natural order.

OSCAR: It still seems like a pretty big leap to me.

SOPHIE: Maybe by itself it is, but when I combine it with some other gaps, I start to see a pattern.

OSCAR: More gaps?

SOPHIE: Yup. The philosopher Kant said that there were two things that filled him with awe: the starry skies above and the moral law within. I think the moral law within is another gap in naturalism.

DAVID: I'm more familiar with this argument, although I never heard that line from Kant before.

OSCAR: You think there's no natural explanation for morality, is that it? You don't think it's good enough that we have evolved so that we restrain ourselves from killing each other, because if we hadn't, we wouldn't be here?

SOPHIE: There may well be an evolutionary explanation for some of our moral tendencies, and especially our moral *feelings* of sympathy and compassion. But I'm not so sure that evolution can explain some of our moral ideals.

OSCAR: Such as what, specifically?

SOPHIE: Take bullying for example. I could be wrong, but I think that just about anybody on this planet can see that there's something wrong when a strong person overpowers a weak person just because he can. People may resign themselves to it, but I think anybody would recognize that it just isn't right. Bullying can take many forms, including slavery, but I think we all know it when it happens to us.

OSCAR: I don't agree, but never mind.

SOPHIE: If I look at the natural world of living things, bullying is *everywhere*. The strong pick on the weak, often killing them and

eating them. The big fish eat the little ones. Just as we discussed when we were talking about suffering, it's an endless parade of brutality.

OSCAR: True, but what of it?

SOPHIE: In a world dominated by bullying, you'd think bullying would be an ideal, something to be admired and emulated. But it isn't. We don't admire bullies at all; we resent them. Their actions seem unjust to us, but it's hard to see why we should believe in justice in the first place. That calls out for explanation, and I don't think evolutionary theory can do the job.

OSCAR: But people often do admire bullies. Take any dictator you like and you'll find that he has plenty of people who think he's wonderful. We have professional sports that celebrate the ability of the strong to dominate the weak—at least that's one way to see what's going on in boxing and other sports that involve controlled violence.

SOPHIE: That's true, but even so there remains this other ideal that pulls us in the other direction. That's where the gap is. It seems like we should just be pack animals who accept without a second thought the domination and brutality of the alpha male or the queen bee or whatever. But there's more to us than that. Over the centuries, inch by inch, that admiration for bullies seems to be diminishing. If the evolutionary explanation were the only one possible, it seems to me that there wouldn't be this moral progress away from tyranny and acceptance of things like slavery. I'd expect things to go in the other direction, toward total and unswerving admiration of sheer power and brutality, because that's what's going on out there in the wild. Instead, we find an increasing recognition of human rights and a sense that bullying, in all its different forms, is unjust. I'm not saying that we've now arrived at some sort of moral enlightenment—far from it. But I really do think there has been a discernible and global progress toward recognition of universal moral ideals, even though we still have a long way to go.

OSCAR: And you think that calls for a supernatural explanation?

SOPHIE: It's just another gap in the fabric of naturalism. I would never offer it as direct evidence for the existence of God. As I said a minute ago, I can understand how a natural explanation of so-called

moral feelings, such as sympathy, might go. We are probably genetically predisposed to care about others, especially those whom we recognize as genetically or culturally close to us. But there is, in my mind at least, a pretty large gap between such feelings and concepts such as moral obligation, justice, fairness, and rights.

DAVID: The way I see it, it's the absoluteness of these moral ideas that defies natural explanation. In the absence of a transcendent source, I just don't see why anyone would believe in moral absolutes.

OSCAR: Has it occurred to you that some of us *don't* believe in them? A reasonable case can be made that so-called moral absolutes are just the emergent rules for what works in the kinds of human societies that we now have. In other times, the rules were probably very different, but nobody thought there was anything wrong with them. The whole idea of moral progress needs to be examined with a bit more objectivity.

SOPHIE: But that's the point: objectivity! When we take the moral point of view, we step back and consider not just our own interests and not even just the interests of the people close to us. We try to grasp what is the right thing to do as opposed to the thing that's best for us. That's a kind of objectivity, even if we often fail to achieve it. An objective point of view on anything is a point of view that isn't partial to any one person or group. Science is supposed to be objective because it describes the world in a way that anyone can, in principle, observe. Morality is like that too. Loving your neighbor as yourself means recognizing that your neighbor has as much value as you do, despite our natural tendency to think of ourselves as more important.

OSCAR: I still don't see any connection between this and God. I'm perfectly capable of recognizing the value of other human beings without dragging a divine being into the mix. I just don't see how moral ideals amount to an argument for God's existence.

DAVID: Historically, people have had a lot of trouble seeing the intrinsic value of human beings in a purely secular context. They've been much more inclined to see value as attached to power, wealth, lineage, and so on. I think belief in God has a big effect in changing that, and we still have a long way to go.

SOPHIE: I know; it's not the kind of logically tight argument that we'd all prefer. The best way I can put it is this: a lot of religious believers talk about *revelation*, the ways in which God reveals himself. We've all heard about the Bible, the Koran, and other books that are thought by many to be revelations. And David was describing miracles as revelation too. I'm not sure what to think about all that, but when I read what Kant said about the moral law within, it makes sense to me as a kind of revelation. It's as if the moral law is written in our minds and hearts, and someone had to do the writing.

DAVID: I think most believers would agree with that, even if many of them have more confidence in those book-revelations and miracles than you have at this point.

SOPHIE: Finally, there's another kind of gap that has always had a certain pull on me.

OSCAR: I can't wait to behold this next monument of rigorous argumentation.

SOPHIE: That's it right there. Our mental powers seem to exceed anything we have any reason to expect on naturalistic grounds. Think about it. Our species probably evolved as foragers in the African savannah. According to some theories, they were forced out of the tropical forests during a global cooling, when the forests shrank. Instead of becoming extinct, they managed to make a living scavenging, hunting, and gathering. Under these conditions, we'd expect natural selection to favor some increase in cleverness, but our intellectual powers seem to go way beyond what would be strictly necessary to succeed in that environment. It's one thing to be able to find food each day; it's something else to do mathematics, construct complex logical arguments, write poetry, and so on.

OSCAR: That's not such a mystery. As you say, our earliest ancestors lived in forests, like the apes that still live in them. They were probably tree dwellers, for whom finding food was physically demanding but not intellectually demanding. But to find food in a completely different habitat, the savannah, was a completely different story. Apes are not naturally gifted predators; they're strong but they don't have fangs, claws, or the ability to move with blinding speed,

the way many other predators do. So they had to succeed in a different way.

SOPHIE: But that's the point. Look at all other predators. They succeed at what they do by being fast and strong and by having natural weapons. Since so many predatory species have these characteristics, natural selection must favor them. So why didn't we develop fangs, claws, a sharp sense of smell for tracking, and all the rest of the predator's bag of tricks? Why did we, and only we, become predators of a completely different kind? And is it really believable that we're only as smart as we needed to be to hunt and gather?

OSCAR: Evolution doesn't force every species down the same path. Snakes are predators too, and some of them use venom on their prey, but wolves and lions don't. There's no single best way to be a predator. Our way happens to be peculiar to us because of our unique history as a species. Most species, when forced out of their natural habitat and compelled to make a living in a completely different way, become extinct. We managed to adapt and make it through. That's a very interesting fact about us, but it doesn't call for a supernatural explanation. Evolutionary theory can handle it just fine. Our so-called advanced intellectual powers are just a lucky by-product of the powers we needed to survive. Our sense of smell wasn't as sharp as that of some other predators, so we had to compensate by being able to *read and analyze* signs and tracks. Instead of being able to perceive directly that a wild boar was here recently, by smelling its tracks, we acquired a heightened ability to *infer* that it was here. Our unique adaptation was to become inferential hunters instead of sensory hunters. That ability makes us capable of reading and analyzing many other things besides the tracks of prey, so we are able to have this conversation.

DAVID: That's another thing, Oscar. Language. It's obviously an extremely powerful adaptation, since it enables us to cooperate with each other in various complex ways. We can talk to each other not only about what's happening but also about what *could* happen and what we *should* do about it. Despite its obvious power, no other species has language.

OSCAR: Other species are able to communicate; we don't have a monopoly on it. Dogs bark, birds chirp, and they even respond to each other. That's communication.

DAVID: It's communication, but it isn't language. Language is *compositional*. You take meaningful elements and combine them according to rules to make complete messages. What other species do is different; each bark or chirp is a complete message, and you can't break it down into meaningful components. Compositionality is what makes language different from all other communication, and it's what makes it so powerful. It's what makes it possible for you to understand complex utterances—like this one—that you've never heard before and will never hear again.

OSCAR: Okay, I grant you that language is something special. I just don't see it as requiring a supernatural explanation. I agree that it's very powerful, but that's the very fact that explains why, once it got started, it spread through the whole species. Those that couldn't get the hang of language were quickly driven out of business. Some paleoanthropologists think that's what happened to the Neanderthal.

SOPHIE: You've put your finger on yet another explanatory gap. Just how does language, with all its compositional resources, get started in the first place? If all the other apes are doing the ape equivalent of barking and chirping, how does one ape, or one small group, suddenly start putting these signals together into sentences?

OSCAR: Well, how do *we* learn to do it?

SOPHIE: We learn by being immersed in it. As children we grow up around others who are making sentences nonstop, and somehow we just imitate it because we can. We're just wired to acquire language almost as soon as we start hearing it. But our pets don't, not even pet apes, if we have them.

OSCAR: Parrots do it.

SOPHIE: Not really. They repeat sentences; they don't make them. That's different. As children, we very quickly start making sentences that we've never heard before. Nobody teaches us how to do it either. We just have an innate ability to learn to make sentences, but it has to be activated by being around people who *are* making

sentences. That's what makes the origin of language so mysterious. Obviously the first language users didn't learn by imitating others, so they must have learned in some other way. But how?

OSCAR: The first language users didn't *learn* language; they *invented* it!

DAVID: How do you invent language?

OSCAR: Lots of languages have been invented. Ever heard of Esperanto? Or Tolkien's Elvish languages?

DAVID: Oh, it's not hard to understand how a new language could be invented by people who already speak languages. But it's very obscure how people who have no language at all and know nothing about language could simply invent it.

OSCAR: The trouble is, language doesn't leave fossils behind, so we can never know how it got started. But once again, we shouldn't mistake our ignorance for evidence that God did it.

SOPHIE: There are a lot of things about human evolution that we may never understand, but I wouldn't take most of them as evidence for God. But there's something about language, something about the way our thinking is all about reasons, and something about logical consistency that seems to me very far removed from the rest of nature. If we believe something and then encounter—or are told—something that contradicts it, we try to resolve the contradiction. We experience cognitive dissonance. It's as if we have a drive to make sense of the world. There's just no sign that any other species has anything like this, and language is what ties it all together. We think propositionally, and the rules of logic apply to those propositions, so we see that believing one thing *commits us* to believing other things. I'm not a creationist. I think the human species evolved from some other primate species. But I have a real problem conceiving of how rational linguistic thought evolved. It all seems to have too many parts that interconnect. And it seems far too elaborate to be a side effect of our ability to find tubers or track wild boars.

OSCAR: That's an argument from personal incredulity. You just can't believe evolution did it, so God did it. Look, I can see what you're saying, and I don't deny that language and logic are wonder-

ful and mysterious, but I just don't think that gives them any value as *evidence*.

DAVID: You're right, Oscar, it is incredulity. But incredulity does play a role in scientific discovery too. If something is unbelievable, it drives scientists to seek a better theory. I think Sophie's point is that there's something unbelievable about the idea that our powers of thinking and speaking, interconnected as they are, just appeared as the result of blind evolutionary processes.

OSCAR: Then scientists will keep looking for a theory. Sometimes the result of incredulity is a theory that shows that what looked unbelievable isn't so unbelievable after all.

DAVID: I don't think anyone would say that scientists should stop looking for natural explanations of these things. The point is that if we look at what we know *now*, it also makes sense to think that our distinctively human capacities, such as language and logical thinking, were bestowed upon us by an infinitely rational being.

OSCAR: Bestowed? Are we talking about a kind of linguistic Adam and Eve, the first hominids with the gift of language?

SOPHIE: It sounds strange, doesn't it?

OSCAR: That's an understatement.

SOPHIE: But to me it's no stranger than the *invention* of language out of the primate equivalent of barking. And if I set aside my anti-supernatural bias, it's *less* strange. And there's one other thing that has to be considered as we exchange our arguments and theories.

OSCAR: Only one other thing?

SOPHIE: If you're right, our very powers of reasoning are the accidental by-products of accidental adaptations to hunting and gathering in the remote past. They were "designed," if I may use that word, by evolution just for those immediate survival needs, not as tools for discovering general truths about the universe.

OSCAR: Yes, but truth is truth, so being good at finding out the truth about the locations of tubers and wild boars would make us good at finding out other truths as well.

SOPHIE: Would it? Again, other species are good at finding food, but they stink at other kinds of truth-seeking. You assume that the adaptations that made us good hunter-gatherers also made us good theory-makers and general truth-seekers, but evolutionary theory gives you no reason to make that assumption. Darwin himself was troubled by this.

OSCAR: I really don't see your point. Darwin may have been troubled, but I'm not.

SOPHIE: I'll give you an analogy. We have taste buds on our tongues, right? They are receptors that enable us to taste sweet, salty, bitter, and sour things.

OSCAR: No question about it.

SOPHIE: And we trust them, right? For example, sweet things taste good, they indicate the presence of sugars, and sugars in nature are energy sources. So it makes sense to trust them and to think that sweet things are good to eat.

OSCAR: That's right. It makes good evolutionary sense that we are sweet-seekers, if that's what you're getting at.

SOPHIE: That's exactly what I'm getting at. But now consider our reaction to something sweet that isn't an energy source. Our taste buds would deceive us into thinking it's good to eat, but they would be wrong.

OSCAR: What tastes sweet but isn't an energy source?

SOPHIE: A diet soda, for example. Of course, we design them to fool our senses, because if we're overweight, we want to avoid taking in more energy, since we want to burn stored energy. But my point is that the fact that our taste buds evolved for a certain specific purpose doesn't mean that they can be trusted when used for things that fall outside their natural domain—in this case, artificial flavors. Remember, this is an analogy. So the fact that our reasoning powers evolved for very specific reasons having to do with hunting and gathering means that we can't just assume that we can trust them for all kinds of truth-seeking.

OSCAR: So we should be skeptical. What of it?

SOPHIE: If we take it seriously, it's a pretty corrosive kind of skepticism. The entire evolutionary story is itself a highly theoretical construct of deductive and inductive reasoning. Even to understand it is to use our minds in ways that have little to do with what we do when looking for tubers and wild boars. If that fact should make us skeptical, then it should make us skeptical of evolutionary theory itself and of the whole scientific enterprise. To put it another way, the very confidence that we have in evolutionary theory can't be justified from within that theory.

DAVID: On the other hand, if our minds were designed—I mean *really* designed—to be truth-seekers, by a designer who is up to the job, then we'd have good reason for the trust that we have in our intellectual capacities.

OSCAR: It doesn't prove anything.

SOPHIE: No, but it explains how we got to be the kind of beings who care about things like proof. For some reason, this is more convincing to me than the usual so-called proofs of God's existence.

OSCAR: I thought we were avoiding the p-word. So I'll paraphrase you to be saying that our interest in evidence is evidence that we were designed by God, is that about right?

SOPHIE: That's about right. I'm not sure myself how much weight the evidence has, but that may be just because I'm so indecisive. I do think it has *some* weight, though. You can call it personal incredulity if you want, but it's pretty compelling to me. I look at all the species of animals and their ingenious ways of finding food, tracking prey, and staying alive while doing it. They all have a similar need to *get things right* in their interactions with the world around them. But in just one species—us—this leads to abstract reasoning.

OSCAR: It just shows that it's good to be us!

SOPHIE: It's definitely good to be us, but do you remember back when we started this discussion I said that what makes mathematics real to me is that it pushes back?

OSCAR: I remember. And I said God doesn't.

SOPHIE: You did. Well, for me at least some of these arguments feel like God pushing back. It's as if he's saying, "Go ahead, deny that there's a mind behind the universe. See how far you get."

OSCAR: I think we get pretty far. In fact, I'd say that as soon as people got serious about suspending belief in a mind behind the universe, science really began to take off. In any case, your feeling of God pushing back is pretty subjective.

SOPHIE: I don't deny that there's a subjective element to it, and that's a big part of why I find it difficult to settle the question in my own mind. But to me, these various gaps in our understanding are like . . . dots! And I feel like I'm supposed to connect them.

OSCAR: That's deep. Or not. I never cared much for connecting-the-dots. I'm more of a Lego man. Understanding grows by finding pieces that fit and snapping them together. I don't waste time trying to find a pattern in the missing ones.

DAVID: I think we've taken this about as far as it can go. I've been thinking that for most people, their belief or unbelief in God has little to do with these arguments anyway. But it'll have to wait until tomorrow.

Chapter 8

The Role of Experience

The following day, they meet in the coffee shop, all of them rather tired. Oscar sits with his head thrown back, eyes closed. Sophie is sketching something on a pad. David, carrying coffees back to the table, is eager to resume the discussion.

DAVID: Here you are, folks. This coffee has been sitting there for a while. It ought to be good and strong.

OSCAR: Will it make me see God?

SOPHIE: Let us know if it does, will you? Where did we leave off yesterday? It feels like it was two weeks ago. I was up half the night working on a philosophy paper.

DAVID: Oscar, a while back you said that one reason why people disagree about things, even though they have access to the same factual information, is that they bring different experiences to the table. That stuck in my mind, because I think it's very important in our present discussion about the existence of God. It's why I said yesterday that I think most people come to believe in God or even stop believing—because of things that have little to do with arguments and evidence.

OSCAR: I agree with that. I think most people believe in God because it satisfies some sort of emotional need they have. They find reality too harsh and uncompromising, so they retreat into a fantasy, a kind of magical thinking about a being behind the scenes who's in control of everything. It's just not easy to face the reality of a universe that is utterly indifferent to us, with no one at all in charge.

SOPHIE: So in your view, theists are in some sense emotionally weaker than atheists? They're less able to cope with reality, so more inclined to seek an escape?

OSCAR: Yes, that's about it. I realize it sounds a little . . . arrogant, but it's not as though I'm the first person to have the idea.

SOPHIE: No, that's true enough. Marx, Freud, Nietzsche, and plenty of others said something along those lines. But where's the evidence for the claim?

OSCAR: The evidence is in the fact that people believe in God! What other reason can they have?

SOPHIE: After all of our discussion, you can't really ask that question. You know what other reasons people can have, even if you don't find those reasons persuasive. If your *only* reason for claiming that theists are less able to cope with the world than atheists are is the fact that they are theists, you're arguing in a circle. That's why I'm asking whether you have any independent evidence for the claim.

OSCAR: Not really, but I can't see what else would motivate anyone to believe in God.

SOPHIE: If we're going to talk about the *motivations* for beliefs instead of the evidence for them, then we have to do the same for the atheists and agnostics, don't we? No human being is devoid of psychological and emotional needs. If it's fair game to explain the theist's belief in God as simply a fulfillment of those needs, then it's fair to ask what psychological and emotional needs are fulfilled by atheism or agnosticism. It might be interesting to do that, but I don't see how it gets us any closer to the truth of the matter.

OSCAR: Fine, but David was about to say something about how people's experiences, as opposed to their reasoning, lead them to believe in God.

DAVID: I didn't mean to imply that the two are opposed, but I do want to say something about the role of religious experience in belief formation. For a lot of people, this is what believing in God is all about.

OSCAR: Before you start gushing, could you say exactly what religious experiences are supposed to be? Are we talking about visions and voices?

DAVID: We could be, but that's only one kind of religious experience, at one end of the spectrum. There are other, less dramatic kinds that still have a real effect on people's beliefs. Whatever happened to Saint Paul on the road to Damascus was apparently of the extreme kind, to give one example.

OSCAR: What's at the other end of the spectrum? Sneezing?

DAVID: Very witty. For some people, it seems to be a feeling of presence, a sense of being looked after. For me, it started with sensing something in another person, and being drawn to that. I didn't start seeing or hearing anything new or different, but the things that I did see and hear seemed to be linked in a different way. Things that were previously meaningless coincidences started to look like parts of a plan. My life seemed less and less like a series of random events for me to navigate through, and more like a story with a point. And it's a self-confirming thing: the more I look for confirmation that my life is unfolding according to a plan, the more it seems to happen that way. The more I trust the idea that things happen for a reason, the more reason I can find in them, and the easier it is to trust.

OSCAR: What does this have to do with God? All you're doing is *reinterpreting* your life. You're assigning new meanings to things. As you just said, nothing different is happening; it's just the same stuff as always. The only thing different is how you decide to think about it. That's all well and good, but I don't see that it has much value as evidence for the existence of God. I mean, there are plenty of people who do the same thing with astrology. They convince themselves that the events in their life conform to a plan that has been revealed in the positions of the planets. To them it's all very real, but to the rest of us it's a purely subjective delusion. It's very telling that you describe your religious experience as "self-confirming." The more you believe in it, the more you look for confirmations of it in your daily life; and the more you look for those confirmations, the more you find them. This may sound pretty harsh, but I'm not singling out your religious experience for this treatment. We're all susceptible to

the self-confirming effects of the beliefs that we hold. But if they're going to have any value as evidence, they have to be more than self-confirming. They have to stand up to critical scrutiny.

SOPHIE: Oscar has a point, David. Whatever your religious experience may mean for you, it can't really serve as evidence for the rest of us unless you can show that it's different *in kind* from the astrology buff's feeling that his life is guided by the stars.

DAVID: I can't do that, but it doesn't shake my certainty that my experience is real.

SOPHIE: Nobody's trying to shake your certainty—at least I'm not. And I don't doubt that your experience is real, since all experiences are real experiences. But what does it mean? Is it true of anything outside the domain of your own mind? That's the real question.

DAVID: Maybe it'll help to talk about the more dramatic kinds of religious experiences first. If we can find some kind of validity in them, I might be able to link my kind of experience to them somehow.

OSCAR: Go for it. We like drama.

DAVID: If you look at the mystical literature of the world's religions, you'll find many descriptions of people having intense experiences, which they describe in various ways as union or communion with God, depending on the theology they're working with. They often claim to achieve a state compared to which ordinary everyday consciousness is dreamlike. Sometimes these breakthrough experiences are spontaneous, and sometimes they are the result of disciplined cultivation, as in yoga or contemplative prayer. But the striking thing is the similarity in the way these experiences are described, even when the religious traditions and theologies are very different. It suggests that they're all experiencing the same thing but interpreting it in somewhat different ways.

OSCAR: People also have such experiences after taking drugs. So I don't doubt that they're all experiencing the same thing, but it looks to me like what they're experiencing is some alteration in their brain chemistry. It may be caused by LSD or mescaline in one case, or by

disciplines in other cases, but I don't see any reason to think that it's anything *beyond* altered brain chemistry.

SOPHIE: Well, any thought process that you mention is associated with changes in brain chemistry. The brain isn't a static object like a rock; it's changing all the time. You seem to be assuming that if an experience can be triggered by a physical stimulus, like a chemical or a breathing exercise, then it isn't real somehow or it isn't meaningful. But the neuroscientist Wilder Penfield was able, way back in the 1950s, to stimulate the brain directly with electrodes, triggering the recall of vivid memories. Does the fact that he used a physical tool to do this mean that they weren't real memories? If you assume at the start that all mental states are nothing more than events in the brain, then of course mystical experiences are no different, and neither is our rational, logical thinking. It's *all* just brain chemistry. But if you're open to the possibility that there's more to all experience than brain chemistry, then it's at least possible that the mystics' experiences are as real as the memories of Penfield's brain stimulation subjects.

DAVID: This is interesting. I believe that the experiences of mystics are the real thing, but I never thought of it this way.

SOPHIE: I know you get impatient when I bring in mathematics, Oscar, but think of a mathematical truth, such as the fact that the square root of two can't be expressed as a simple fraction. Human beings, with a bit of training, can understand this stuff. Understanding it involves a kind of experience, the experience of "getting it." Dogs can't understand it. It's pretty clear that this is due to differences in the brain structures of humans and dogs. If dogs could somehow get into the right sort of brain state, they'd "get" irrational numbers too, but they don't have the right sort of brains, so they can't. But we shouldn't conclude from all this that the irrational numbers are just a product of brain structures. That would be as crazy as thinking that mathematical truths are the product of paper and ink, because we read about them on the pages of books. Our brains put us in touch with higher realities than what a dog can know about, and those realities are more than just facts about our brains.

OSCAR: I can see you're pleased with yourself about this one, but I don't think the comparison is fair. It's one thing to talk about

two completely different types of brains being able to know different kinds of things. It's quite another thing to talk about two brains of the same type—two human brains—one of which has some extra chemicals in it.

SOPHIE: Maybe it isn't so different. In both cases we're talking about changing the range of available brain states and getting, as a result of that change, different kinds of knowledge. For that matter, think of what a trained mathematician knows, most of which is way beyond my ability to understand. There are entire branches of mathematics about which my understanding is no better than a dog's. It's not so different from the mystic who, after years of training and discipline, achieves a kind of knowledge that the rest of us just don't get.

OSCAR: But higher mathematics is still basically an extension of the lower mathematics that you do understand. Advanced mathematics builds upon simple mathematics, step by logical step. It's a continuous path from arithmetic to calculus. The mystic, on the other hand, wants us to believe that he or she has a complete different kind of knowledge, something fundamentally discontinuous with everything else we know. Plus, if I really want to know whether higher mathematics is meaningful, I can always learn it for myself.

SOPHIE: You can also take up the practices of mystical discipline, if you want to have the kinds of experiences that mystics have.

OSCAR: There's no guarantee I'll succeed, though.

SOPHIE: There's no guarantee you'll succeed with mathematics either. The best we can say is that there is a substantial body of records indicating that at least some people do succeed, and these records cross cultural and historical boundaries. The Buddhist and Hindu mystics sound a lot like the Christian and Muslim mystics.

OSCAR: And the drug users?

SOPHIE: Maybe. In some of the shamanic traditions, the use of psychotropic substances is seen as a valid form of initiation, a sort of preview of mystical knowledge, if not a completely reliable and safe way to become stabilized in it. Don't forget that religious mysticism isn't just about having flashy experiences. It's about integrating those experiences back into one's life. My point is that the universality and

robustness of mystical experience gives us some reason to believe that the mystics are onto something real.

OSCAR: But is it God?

SOPHIE: There is a problem of interpretation here, absolutely. Even though the mystics' descriptions of their peak experiences sound similar, there is a vast difference in the symbolism used to interpret them, and it's admittedly not easy to say where the experiences leave off and the symbolism begins. Buddhists don't interpret their experiences theistically; Jews, Christians, and Muslims do.

OSCAR: Then it doesn't seem to amount to much support for God's existence, if some mystics don't believe in God.

DAVID: In a way, you're right, Oscar. The mystical experience provides, for the person who has it, a glimpse of *something* beyond the natural order. That in itself has to weaken the grip of naturalism on the mystic's mind, but to get from there to any particular form of theism needs more evidence of the sort we've been discussing for the past few days. My point is that powerful religious experience helps to open people's minds to that evidence. It gives them a reason to pay attention to it. And in the other direction, the arguments and evidence we've been talking about give them a reason not to dismiss the religious experiences they may have, whether they're intense or more humble, like mine.

OSCAR: Nothing personal, but this still sounds like magical thinking to me. If I have a powerful mystical experience of some sort, my first reaction isn't going to be that God is reaching out to me. And when there are meaningful coincidences in my life, as I think there are in everybody's life, I certainly don't think it's because God is running things behind the scenes. It all just seems childish to me.

DAVID: I can understand your viewpoint, since it used to be my own.

OSCAR: Sophie mentioned Freud a while ago, and I know he argued that belief in God was some kind of father-figure projection. But today evolutionary scientists argue that we have an innate tendency to read purposes and meanings into blind, random events. This tendency served a useful purpose in our evolutionary past, keeping

us vigilant and alert to predators. In terms of survival, it's better to be hypervigilant than to be too laid back and trusting. But in today's world that hypervigilance makes people see meaning and feel presence where there isn't any.

DAVID: That's a nice theory, but I don't think it really captures the experience of the believer.

OSCAR: Why not?

DAVID: That experience, which some of us call faith, actually is a kind of trust. I don't go through life in a state of red alert, nervously looking for indications that God is around. It's just about the opposite of that. I feel *less* restless and *more* confident in the face of the things that happen every day.

OSCAR: Until things go wrong, as they inevitably do.

DAVID: There's no question about it, that's when the going gets tough. I'm not going to try to persuade you that my life as a believer is an unbroken expanse of serenity. I'm not even going to tell you that I never have doubts about my belief in God, because there are times when those doubts really come at me. But on the whole, I have a greater sense of . . . security in the universe than I did before I was a believer. I don't mean security in the sense of being safe from all harm; more like security in the sense of belonging here because I'm part of a plan.

OSCAR: So what made you become a believer in the first place, if it's not too personal?

DAVID: As I said before, I sensed something different about a person I knew and respected. It was a teacher I had in high school, a physics teacher. This guy really impressed me with the power of his mind, his sense of humor, and his compassion. He tried to help every student and spent long hours after school with the ones who were having trouble keeping up. One time I drove past the school early in the morning and saw him out there, before the school had even opened, picking up litter. I may be the only person who even knows he does that. In class, he conveyed a real passion for his subject, which is more than I can say about some of my other teachers. What I'm getting at is he was a role model for me, the kind of person I thought

I wanted to be—even though I had no illusions about becoming a physicist. I later found out that he had a deep and active belief in God. I was shocked to discover this, since I was full of beliefs like yours about the childishness of religious belief, and the ignorance of believers. Even as a teenager, I thought I was above all that. But this man was the very opposite of childish and ignorant. Looking at him, I realized there was something wrong with my way of thinking about belief in God. That was my religious experience, my turning point. It was seeing what belief might actually look like, in the form of a person who I really admired and respected.

OSCAR: And that was it? You became a believer?

DAVID: Not right away, no. But it opened the door, so to speak. I was too shy to ask him directly, and in any case it was school, and you don't just start asking your teachers personal questions about their faith. But during the summer after graduation I ran into him again at a park, walking his dogs. I got up the nerve to ask him about his belief in God. He didn't give me a big speech or anything. We only spoke for a few minutes, and he recommended some books for me to read and told me just to keep an open mind. Within a few months I realized that my thinking had changed and I was a believer. There was no single "Aha!" moment.

SOPHIE: It's a good story. I don't think I ever really thought of something like that as a religious experience, but now that I hear you tell it, I don't see why not. We live in a time when atheists try to imply—or state outright—that they are more intelligent than believers. Some even want to be called "Brights"! In that kind of atmosphere, discovering that a man you respect for his knowledge and intellect is also a theist could well have a powerful effect. Historically, of course, there was no prejudice against the intellectual powers of believers or, for that matter, atheists. Many people of formidable intellect and great achievement believed in God—certainly not just immature and dull people.

OSCAR: But for most of history, belief in God has just been a part of people's background assumptions about reality. I suspect that many of these people believed in God simply because it was expected of them. It was the thing to do.

SOPHIE: Really? I'll say again that I don't think much of this idea that for most of history people were too fogged in to be capable of critical thinking, until we reach the enlightened present. To listen to you, Oscar, one would think that atheism was just too difficult for, say, Pascal to figure out on his own. No, I think David has made a good point. If you are going to maintain that belief in God is a sign of immaturity or mental weakness, then you really need to provide some evidence that believers as a group are less fully functional, mentally, than nonbelievers. You need to show that they have a problem of some sort, other than believing something that you don't believe. If you can't show that—and I really don't see how you could—then your thinking about believers is, in its own way, just as magical as what you think of them. What's interesting to me about David's personal story is that he actually needed to be convinced that someone who believes in God could also be an intellectual, a scientist. His discovery about his teacher was a religious experience for him because his thinking about theists was so skewed in the other direction.

DAVID: That's right. And looking back on it, I don't think it was an accident that I got to know this teacher or that I found out he was a believer or that I happened to meet him again after graduation. I don't expect you to see it that way, Oscar, but that's my experience.

OSCAR: No, that's your preferred *interpretation* of your experience. Let's leave it at that. I take it we're all agreed that mere experience, whether dramatic or ordinary, doesn't have religious meaning until you interpret it. Even Paul could have interpreted his experience on the road to Damascus as the result of having eaten some bad hummus or something. And none of it adds up to proof of God's existence.

DAVID: I only wanted to make the point that for many people it's about more than just arguments and counterarguments. Experience is part of the mix. I don't want to say that nobody comes to belief in God by reason and evidence alone, but I suspect that for many there's more to it than that. A minute ago, Sophie mentioned Pascal as an example of someone who was both a genius and a believer. I think it's relevant to our discussion that what initially moved Pascal from unbelief to belief was not arguments and evidence; it was a powerful religious experience. It was so important to him that he wrote it

down and sewed it into the lining of his coat, so he'd always have a reminder with him. After that experience, he put his energy into thinking about the rational case for God. Before it, he had other things on his mind. For people like Pascal, the experience is what gets their attention and the evidence comes later.

SOPHIE: Or, to put it differently, for those people their experiences become part of their evidence.

OSCAR: I still think the theist ought to be able to do better than what I've heard so far. Good arguments and evidence should move anyone to believe, and they shouldn't require a special interpretation that would only occur to a believer. But I'm done for now. I have work to get caught up on. I'll see you both later.

Chapter 9

The Space of Reasons

It's Friday evening and the campus is quiet. Many students have gone away for the weekend or are out letting off steam. David, Oscar, and Sophie meet in the lounge of the student union. Oscar is sprawled out on a sofa.

OSCAR: I've done as much studying as I can do. My brain isn't just fried; it's extra crispy.

DAVID: I'm surprised you're not out getting an early start on the weekend festivities.

OSCAR: I'm just as surprised. But I wanted to wrap up the discussion we've been having all week. Even though I haven't heard any compelling evidence for the existence of God, I do appreciate having the chance to talk it through with you guys.

SOPHIE: I wonder if there is such a thing as compelling evidence, really. Does evidence ever compel? I suppose compelling evidence would give you the feeling that you have *no choice* but to accept a certain position. How often does that happen?

DAVID: When we started out, Sophie, you made the point that we should be talking about evidence rather than proof, where evidence is anything that makes a claim more believable. Proof is all or nothing, but evidence has degrees; remember that?

SOPHIE: Sure. If anything can really compel belief, it's proof. In formal logic and mathematics we have strict rules of deductive proof. Outside of those domains, when we say that something is proven, we imply that it would be *irrational* to accept the evidence or argument

but reject the conclusion. And to say that it would be irrational is like saying that a person's thinking process is broken.

DAVID: This is why I don't like to talk about proofs for the existence of God. I don't think anyone can make a case for God's existence that's so strong that a rational person would have no choice but to accept it.

OSCAR: Because if you thought that, you'd be committed to the idea that the millions of atheists in the world are all mentally defective.

DAVID: That's right, Oscar, and I don't think that at all. I used to be an atheist—I can remember my thought process, and I just don't think I was irrational in my beliefs; I just think I was wrong. There's a difference. Having said that, I don't think my belief in God is just arbitrary or without good reason. That's why it has been important to me to try to lay out my reasons as carefully as possible.

SOPHIE: As far as that goes, there are plenty of things that we all believe and act upon without proof, in the sense of evidence that absolutely compels.

OSCAR: Such as what?

SOPHIE: When you board an airplane, you believe that the pilot is trained and competent to fly it. You're actually staking your life on that belief. If you didn't believe it, you wouldn't get on the plane at all. But you don't have proof. There are any number of ways in which you could be mistaken. When you get in your car to drive anywhere, you believe you'll get to your destination safely. You have good reasons for that belief, but you don't have proof.

OSCAR: I don't see how you can compare believing in the existence of an invisible all-powerful person with believing that I'll make it to the supermarket alive in my car. Even though it's possible that I won't survive the drive, it really would be irrational for me to refuse to drive, unless I had specific evidence of impending danger.

SOPHIE: Good point. That means that there can be compelling evidence even when there's no proof. It seems to me that this only happens when all the evidence is on one side.

DAVID: What do you mean by that?

SOPHIE: Take the airline pilot example. Do I have any evidence that the pilot is trained and competent to fly the plane? I think I do. I have reason to believe that airlines screen pilots carefully; they have a moral and financial stake in doing so. The pilot himself has a stake in it, on the reasonable assumption that he doesn't want to die in a plane crash. All of this counts as evidence for the claim that the pilot is competent. But it's not proof. It's at least possible that despite all these facts, he's not trained or competent. He could be an impostor or a terrorist or something. But in the complete absence of any actual evidence for something like that, it really would be irrational to believe it. The same thing goes for driving in my car. I can't prove I'll arrive safely, but if I have no actual evidence of unusual danger on a given occasion, it would be irrational for me to think I won't survive.

OSCAR: But when we're talking about the existence of God, there are plenty of arguments on the other side.

DAVID: I agree, Oscar. I would never claim that the atheist has no reasons for being an atheist.

OSCAR: I'm surprised to hear you say it, but I'm glad you admit that all your arguments leave plenty of room for . . . plausible deniability, to put it mildly.

DAVID: I think some leave less room than others, but yes, I admit it. I haven't been trying to show that there's no plausible deniability for God's existence. I've been trying to show that there really is . . . plausible assentability! Is that a word?

SOPHIE: I think "assentable" is a word, so why not?

DAVID: You get the idea. A claim that one can plausibly assent to has plausible assentability.

OSCAR: I think "plausibility" would do just as well, but I guess you want a term that parallels "plausible deniability."

DAVID: I do. I want to keep the notion of *assent* in there alongside of denial. There's more than one way to think about evidence. One way is to say that evidence is anything that makes a claim more believable; another is to say that evidence is anything that makes a claim less unbelievable.

OSCAR: How is that different?

DAVID: In strictly logical terms, it may not be. In terms of actual thought processes, I think there's a difference. Before I could even think in terms of evidence for God's existence I had to find a way to make it less unbelievable. There was a barrier there, a preconception that the idea of God's existence was *inherently* unbelievable. Nobody ever actually told me that; I just picked it up from the culture around me. Once it was in place, though, it made it hard for me to pay any real attention to the question of God's existence, even to take it seriously. The arguments we've been discussing can correct that preconception. That was my point about the importance of assent. Assent is a kind of mental act, but we can't do it until we stop resisting. Understanding that believers make careful use of arguments and evidence helps to overcome that resistance. Another obstacle to thinking about evidence and arguments for God is the idea that we're all taught that we're all entitled to our own beliefs.

OSCAR: You have a problem with that?

DAVID: Not at all. To me, that means that nobody should be punished or bullied for holding a belief. I'm completely sold on that idea. But somehow I also got the idea that being entitled to beliefs means that reasons and evidence are irrelevant; that God is just something that some people believe in and others don't.

OSCAR: But that's true! Some people believe in God and others don't.

DAVID: Of course, but I was so convinced that people have the right to believe whatever they want that it felt intolerant somehow to ask *why* they believe, as if I were challenging that right. It's very easy to get into this mindset where you treat beliefs as if they are just a given about a person, like skin color. I don't ask Sophie why her

skin is dark brown; I just accept it. And I was at the point where it wouldn't occur to me to ask someone why he believes in God; I'd just accept it. Obviously, we do have to accept that people believe what they believe, but we don't have to think of their beliefs as givens, like skin color or hair color. It's not intolerant to ask someone why he or she believes something.

OSCAR: But when you start to tell that person why she shouldn't believe what she believes, you cross the line. When you insist that you have the truth, and everyone else needs to be rescued from ignorance, you're over the line with both feet.

SOPHIE: That line can be blurry sometimes. If you believe something that I don't believe, you may tell me why you believe it, and I'll tell you why I don't believe it. It's hard for me to tell you why I don't believe it without at least implying that you shouldn't believe it either. Obviously I think my beliefs are worth believing, and if they're different from yours, that implies yours are less worth believing. That's when people start to get defensive and feel that their right to their own belief is being challenged.

DAVID: That's right. It's important to know when to stop. We've been talking about the existence of God for days now, and I think I've made my case as best I can; and you, Oscar, have told me in no uncertain terms why you disagree with me. I do feel a responsibility to make my case, but that doesn't mean I have to try to change anyone's mind. Either the case I make will do that or it won't, but it's not my job to make sure that it does. My job ends with making the best case I can. Unless I think of something to add to what I've already said, I need to stop and not try to control the outcome.

OSCAR: I appreciate that, and I'd never accuse you of trying to force your beliefs on me. You'd have no chance of that, in any case. But what about you, Sophie? Sometimes it seems like you're on David's side, but at other times I'm not so sure.

SOPHIE: I prefer to remain mysterious, enigmatic—

OSCAR: Oh please. I think "evasive" is the word you're after.

SOPHIE: Hmm, not intentionally. As I listen to you and David, I find myself Gestalt-shifting between worldviews.

OSCAR: This is taking evasiveness to a whole new level.

SOPHIE: Seriously. You know about the Gestalt shift, right? You've seen those pictures, like the one that you can either see as a young woman looking away or an old woman looking to the side.



OSCAR: Yes, I've seen them. The idea is that you can shift from one way of seeing to the other, but you can't do both at the same time. It's a well-known phenomenon in the psychology of perception.

SOPHIE: Exactly. I find that my overall way of thinking—my worldview—is like that. I listen to you for a while and I'm in "naturalism mode." There's the natural order; the world of things in time and space, subject to laws; and that's all there is and all there could be.

When I'm in naturalism mode, my standards of evidence are such that it's pretty much unthinkable that anything could count as evidence for anything supernatural. And even though I know there are reasons to doubt naturalism, when I'm in that mode those reasons don't have much weight. They just seem like minor details that will get worked out sooner or later.

OSCAR: That's a good summary of my worldview then.

SOPHIE: But for me, naturalism mode is unstable. Sometimes I just flip into supernaturalism mode, and it seems utterly obvious to me that the problems of naturalism are deep and unlikely ever to be solved, because there's simply more to reality than the natural order. And when I'm in that mode, my thinking moves in the direction of theism.

DAVID: And that's a good summary of my worldview, although to be perfectly honest I still flip into naturalism mode from time to time too. It's a big part of the culture around me, after all. But it doesn't have anything like the hold on me that it once had.

SOPHIE: As you guys know, I've taken a lot of philosophy courses.

OSCAR: Yes. We know.

SOPHIE: Very often in philosophy, the problems seem to come down to choosing which bullet to bite. Naturalism is appealing because it's simple, in a way, and science has made good progress by assuming it. In our time in history, that's very powerful. But I really do have grave doubts about naturalism's ability to explain a lot of things—especially the natural order itself. For reasons that we've already discussed, I'd say that in order for something to count as an explanation of the natural order, it can't be just more laws, which would only be an extension of the natural; it must be personal. That's theism. But the acts and purposes of a person aren't fully transparent either. So whether I'm in naturalism mode or theism mode, I have to accept certain brute facts. But I don't *like* brute facts, and that's what keeps me flipping back and forth.

DAVID: You have to choose.

SOPHIE: Do I? *Can* I really choose? It's not as though my mind has a switch that would allow me to settle for one worldview or the

other. You said yourself, David, that even you find that you sometimes flip back into naturalism mode.

DAVID: That's true. I didn't mean to suggest that you can choose worldviews like you choose what to have for lunch. That's what I was talking about a few minutes ago. There's inner assent and inner resistance, and we have some control over those. In my own case, the conscious choice was to open my mind, just as my teacher advised me. I didn't choose to believe in God; I only chose to stop resisting the idea. After that, the day eventually came when it dawned on me that I was a believer, and I assented to that.

SOPHIE: Well, I'm not there yet.

OSCAR: So why not just be an agnostic? If what you just described doesn't make you an agnostic, I don't know who could possibly be one.

SOPHIE: I suppose I am one, but not willingly. In my heart, I feel like agnosticism is mostly a way of avoiding taking a stand, and I don't admire that in myself. I also don't like the feeling of bouncing back and forth between worldviews any more than I like brute facts. And there are other factors involved that have nothing to do with reason and evidence. Sometimes I associate naturalism and theism with, for lack of a better term, people behaving badly. I've seen some pretty astonishing arrogance and sheer meanness on both sides. I know I shouldn't let such things sway me, but it's not always easy to stay objective.

DAVID: I can relate to that. I associated belief in God with religious bigots and wanted no part of it. That's where some of my resistance came from, and it's another reason why my physics teacher, who was the very opposite of a bigot, had such an effect on me.

OSCAR: I've seen a lot more bigotry among the religious than I have among scientists.

DAVID: You're making a false opposition there, as if scientists are automatically not religious. There's plenty of overlap between the two. And there are atheists—whether or not they are practicing scientists—who openly ridicule theism and all religious belief. I think any attempt to belittle those on the other side of the question counts as bad behavior.

SOPHIE: So I guess for the moment I'm stuck in the middle as an uneasy agnostic. I may be the perfect candidate for Pascal's wager.

OSCAR: I didn't realize Pascal was a betting man.

SOPHIE: Pascal argued that instead of trying to prove God's existence directly, we should consider the consequences of belief and unbelief.

OSCAR: What consequences?

SOPHIE: Suppose belief in God is necessary for salvation. If you believe in God, you have much to gain and little to lose. If there is a possibility of immortality in an afterlife, for example, the possible advantage of salvation is infinite compared to the minor and finite inconvenience that believing imposes on one's mortal lifestyle. So if God exists and you believe in him, you win big; and if you don't you lose much. But if God doesn't exist but you believe in him anyway, you don't lose that much; if you don't believe in him, you don't lose anything. The riskiest option is clearly for God to exist and for you not to believe in him. The smart bettor minimizes risk, so the best bet is to believe.

OSCAR: I'm not convinced that the cost of believing in God is just a minor inconvenience. It could involve rearranging a lot of things in the way I think and live. So tell me why you're not moved by this argument. If you were, you wouldn't be an agnostic.

SOPHIE: Pascal was arguing in a specifically Christian context, with a very specific theology according to which belief in God is, in fact, necessary for salvation. Anyone who is still inclined to be agnostic isn't likely to be convinced of that theology, and that's probably why so few people, myself included, are impressed by the Wager.

OSCAR: There's also the matter of whether it even makes sense to suppose that I could just decide to become a believer, like deciding to get a tattoo.

SOPHIE: Pascal wasn't that flat-footed about it. He understood that beliefs don't have on and off switches. His idea was that you *can* decide to go to church, pray, sing hymns, and so on; and he thought

that belief would eventually come. It seems to me, that's a matter of human psychology, and it might not work as well today, in our completely different cultural atmosphere. I just don't know.

DAVID: That's why I didn't bring it up in our discussions. As I already mentioned, Pascal himself didn't come to belief that way. He had a powerful religious experience that changed him overnight.

OSCAR: If God wants us all to believe in him, he could give us all experiences like that.

DAVID: Who can say? I bet there have been people who have had such experiences who later dismissed them as aberrations. He lets us do that. I believe God reveals himself to us in many different ways. What worked for Pascal might not work for you, Oscar. I think he'll eventually get through to you too, Sophie. It may be through some philosophical argument that I haven't thought of or it may be in some completely different way. But what he doesn't do is force us. That much is clear to me. He gives us room to turn away, if that's what we want to do. Our beliefs don't have on and off switches, but we control what we pay attention to, what we tune out, and what we dismiss outright. That appears to be the way he wants things to be.

SOPHIE: Maybe it's as important to God that we learn to listen to each other as it is that we come to believe in him through reasons and evidence.

DAVID: I think we can do both. We can listen to each other and think through the evidence at the same time. It's what we've been doing. And for my part, I also think this is one of the ways God talks to us, by getting us to listen to each other.

OSCAR: I have no problem listening to my friends.

SOPHIE: Amen to that.

Suggested Readings

There are quite a few excellent anthologies of readings in the philosophy of religion that provide more extensive coverage of the issues discussed in this dialogue as well as other issues that I didn't include. *The Oxford Handbook of Philosophy of Religion*, William Wainwright, editor (New York: Oxford University Press USA, 2007) is a very good compilation of contemporary work. *Philosophy of Religion: A Guide and Anthology*, Brian Davies, editor (New York: Oxford University Press USA, 2000), a large volume, has both recent and traditional writings. There are many good single-author overviews to choose from; I'll mention two. William Rowe's *Philosophy of Religion: An Introduction* (Belmont, California: Wadsworth Publishing Company, 2006) is a good survey. Richard Swinburne's *Is There a God?*, revised edition (New York: Oxford University Press USA, 2010) is a compact book that presents a sustained case for God rather than an overview. It has been in print (in this and a prior edition) since 1979 and has held up well.

The classical sources are still important. Anselm's original presentation of the Ontological Argument is found in his *Proslogion*. An English translation by Thomas Williams is in *Monologion and Proslogion* (Indianapolis: Hackett Publishing Company, 1995). Possibly the most influential historical contribution to the literature of arguments for the existence of God is the "five ways" of Saint Thomas Aquinas, found in the *Summa Theologica*, Part I, Question 2.

The Kalām Cosmological Argument, which is presented in a simple form in Chapter Two of this dialogue, is also a classical argument, but it has been revived and vigorously defended by Christian apologist and philosopher William Lane Craig in *The Kalām Cosmological Argument* (Eugene, Oregon: Wipf and Stock, 2000).

The natural-order argument presented in this dialogue is of course better known in the literature as the Argument from Design, or the

Teleological Argument. It was famously presented in 1802 by William Paley, in *Natural Theology: or Evidence of the Existence and Attributes of the Deity Collected from the Appearances of Nature*. The “garden” argument in the dialogue is just a variation on Paley’s “watchmaker” argument. A book that takes direct aim at that argument is biologist Richard Dawkins’s *The Blind Watchmaker* (New York: W.W. Norton & Company, 1996). Since the first edition of the dialogue, there has been renewed attention given to the Argument from Design, due to two recent debates. One is the “fine-tuning” argument from cosmology. The most influential presentation of that argument from a philosopher was John Leslie’s *Universes* (New York: Routledge, 1996). An engaging popular scientific treatment from physicist Paul Davies is *Cosmic Jackpot: Why Our Universe is Just Right for Life* (Boston: Houghton Mifflin Harcourt, 2007), and Davies has other books on the subject. There has been some pushback against the argument, including the recent *The Fallacy of Fine Tuning: Why the Universe Is Not Designed for Us* (Amherst, New York: Prometheus Books, 2011) by William Stenger, and *A Universe from Nothing: Why There is Something Rather Than Nothing* (New York: Free Press, 2012) by Lawrence Krauss. Krauss and Stenger are physicists, not philosophers. It’s worth noting that Antony Flew, who was a prominent British atheist philosopher, changed his mind and became a theist largely in response to these fine-tuning arguments. His reasons are set out in Antony Flew and Roy Varghese, *There Is a God: How the World’s Most Notorious Atheist Changed His Mind* (New York: HarperOne, 2008). Flew was also influenced by the Intelligent Design debate, which started with biochemist Michael Behe’s *Darwin’s Black Box: The Biochemical Challenge to Evolution* (New York: Free Press, 2006) and philosopher William Dembski’s *The Design Inference: Eliminating Chance through Small Probabilities* (New York: Cambridge University Press, 2006). Philosopher Stephen Meyer has contributed *Signature in the Cell: DNA and the Evidence for Intelligent Design* (New York: HarperOne, 2010). In the dialogue, I only touch on biological (as opposed to cosmological) Intelligent Design, specifically as an origin-of-life issue. To say that there has been pushback against Intelligent Design would be an extreme understatement. Biologist Kenneth Miller published an attempted scientific refutation of Behe’s arguments in *Finding Darwin’s God: A Scientist’s Search for Common Ground between God and Evolution* (New York: Harper Perennial, 2007). There are now

many books on the controversy. A useful anthology is Robert T. Pennock, ed., *Intelligent Design Creationism and Its Critics: Philosophical, Theological, and Scientific Perspectives* (Cambridge, MA: MIT Press/A Bradford Book, 2001). A balanced treatment from a philosopher is Bradley Monton's *Seeking God in Science: An Atheist Defends Intelligent Design* (Peterborough, Ontario: Broadview Press, 2009).

The last few decades have also brought an unprecedented rise in public, or popular, atheism. This movement goes back at least to Hume's 1779 work, *Dialogues concerning Natural Religion* (Indianapolis: Hackett Publishing Company, 1998), edited by Richard Popkin. A more recent attack on theism that is already a classic is J. L. Mackie's *The Miracle of Theism* (Oxford: Clarendon Press, 1982), in which Mackie directly addresses Swinburne's main arguments. There's also a good anthology, *The Impossibility of God* (Amherst, New York: Prometheus Books, 2003), edited by Michael Martin and Ricki Monnier. Even more recent, however, are the books from the New Atheists: Richard Dawkins, Daniel Dennett, Sam Harris, and the late Christopher Hitchens. Dennett is an influential academic philosopher whose book *Breaking the Spell: Religion As a Natural Phenomenon* (New York: Penguin, 2007), attempts to undercut belief in God by offering an evolutionary explanation of the tendency to believe in the supernatural. Harris, a neuroscientist with an undergraduate degree in philosophy, wrote *The End of Faith: Religion, Terror, and the Future of Reason* (New York: W. W. Norton & Company, 2004). I've already mentioned Dawkins as an opponent of the Argument from Design, but his book *The God Delusion* (Boston: Houghton Mifflin Harcourt/Mariner, 2008) is a more general critique of religious belief and what Dawkins takes to be its negative consequences. Hitchens's *God Is Not Great: How Religion Poisons Everything* (New York: Hachette/Twelve Books, 2009) is in a similar vein. These books are not primarily philosophical refutations of the arguments for the existence of God. They are discussions of religious faith mainly as a phenomenon. It's impossible to read much contemporary writing on the existence of God without encountering mention of the New Atheists and their views. A prominent feature in their writings is the idea that belief in God is incompatible with taking science seriously.

I chose not to put an explicit “God versus science” chapter in the dialogue, but this issue nonetheless permeates most of the conversations. There are some recent works that challenge this aspect of the New Atheism. One is *God’s Undertaker: Has Science Buried God?* (Oxford: Lion Hudson, 2009) by mathematician John C. Lennox. Another is *The Devil’s Delusion: Atheism and Its Scientific Pretensions* (New York: Basic Books, 2009), by David Berlinski, a mathematician and philosopher. Alvin Plantinga’s *Where the Conflict Really Lies: Science, Religion, and Naturalism* (New York: Oxford University Press USA, 2011) focuses on this issue and the naturalist worldview, which is discussed in the dialogue. A brilliant critique of naturalism from an influential atheist philosopher is Thomas Nagel’s *Mind and Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False* (New York: Oxford University Press USA, 2012).

The topic of miracles has its own literature. Hume’s discussion in my dialogue is found in his *Dialogues*, already cited. A very readable defense of miracles is C. S. Lewis’s *Miracles* (New York: HarperOne, 2001). Richard Swinburne’s *The Concept of Miracle* (New York: St. Martin’s Press, 1989) remains an important contribution. In case the levitation of Saint Joseph of Cupertino piqued your curiosity, his case and many others are described in Herbert Thurston, *The Physical Phenomena of Mysticism* (London: Burns and Oates, 1952). A more recent volume is Craig Keener’s two-volume work, *Miracles: The Credibility of the New Testament Accounts* (Grand Rapids, Michigan: Baker Academic, 2011). Although the aim of Keener’s book is to assess the New Testament miracle narratives, he collects and analyzes miracle reports from all over the world, from ancient times to modern, and he also discusses the philosophical issues at length. This is the most comprehensive study on the subject of miracles that I am aware of.

The problem of evil and suffering also has a large literature, starting again with Hume’s *Dialogues*. C. S. Lewis offered an eloquent theistic perspective in *The Problem of Pain* (New York: HarperOne, 2001). More recent entries include *The Problem of Evil* (New York: Oxford University Press USA, 2008) by Peter van Inwagen and the anthology *The Problem of Evil (Oxford Readings in Philosophy)* (New York:

Oxford University Press USA, 1991), edited by Marilyn McCord Adams and Robert Merrihew Adams. Another excellent anthology is *The Evidential Argument from Evil*, Indiana Series in the Philosophy of Religion (Bloomington, Indiana: Indiana University Press, 2008) Daniel Howard-Snyder, editor. Although Lewis addresses the specific issue of animal suffering in *The Problem of Pain*, a recent book-length treatment of that problem is Michael Murray's *Nature Red in Tooth and Claw: Theism and the Problem of Animal Suffering* (New York: Oxford University Press USA, 2011).

The question of the relation between rationality and religious belief is very complex, overlapping onto more general questions about the nature of faith and rationality themselves. There are some very interesting readings in this area, including Gary Gutting, *Religious Belief and Religious Skepticism* (Notre Dame, Indiana: University of Notre Dame Press, 1982), and Richard Swinburne, *Faith and Reason*, 2nd edition (New York: Oxford University Press USA, 2005). The name "Pascal's Wager" is given to sections 418 and 233 of Blaise Pascal's *Pensées*, which exists in many editions and translations, such as Robert Ariew, editor, *Pensées* (Indianapolis: Hackett Publishing Company, 2008). Thomas V. Morris offers an interesting and readable discussion of Pascal's thoughts on faith and reason in *Making Sense of It All: Pascal and the Meaning of Life* (Grand Rapids, Michigan: Wm. B. Eerdmans Publishing Company, 1992). The related question of whether beliefs can in fact be chosen is discussed in William James's famous lecture "The Will to Believe," available online at <http://educ.jmu.edu/~omearawm/ph101willtobelieve.html> and in many anthologies. A different kind of contribution to the literature on faith and reason is *God and the Philosophers: The Reconciliation of Faith and Reason* (New York: Oxford University Press USA, 1996), edited by Thomas V. Morris, in which a number of contemporary theist philosophers describe how they have dealt with the tension between reason and faith in their own lives.

In this engaging introductory dialogue, Todd Moody maps the spectrum of philosophical arguments and counterarguments for the existence of God. Structuring colloquial conversations along classical lines, he presents a lively and accessible discussion of issues that are central to both theist and atheist thinking, including the burden of proof, the first cause, a necessary being, the natural order, suffering, miracles, experience as knowledge, and rationality without proof.

The second edition is a significant and comprehensive revision. Moody broadens and deepens the conversation by addressing additional arguments, such as the problem of animal suffering, the moral argument, intelligent design, and human exceptionalism. The discussion of the cosmological argument is updated to reflect recent work on the Kalām Cosmological Argument.

A short preface explains the scope of the work and the purpose of the dialogue form. Suggested further readings of contemporary and classical sources are also included.

TODD C. MOODY is Professor of Philosophy at St. Joseph's University.

*Other introductory dialogues
from Hackett Publishing Company*

Rocco J. Gennaro, *Mind and Brain*

John Lemos, *Freedom, Responsibility, and Determinism*

Norman Melchert, *Who's To Say? A Dialogue on Relativism*

John Perry, *Dialogue on Good, Evil, and the Existence of God*

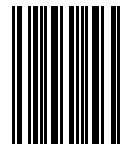
John Perry, *A Dialogue on Personal Identity and Immortality*

Jay F. Rosenberg, *Three Conversations about Knowing*

ISBN-13: 978-1-62466-040-5



90000



9 781624 660405

Cover art: Mobius Strip. [judith511, flickr.]
Reprinted by permission. All rights reserved.