

it is usually rather from the point of view of apologetic argument than from that of a dogmatic foundation for true devotion. We would rather see the reverse." A couple of generations later, we should still rather see the reverse. Apologetics will flow most clearly and effectively from a wellspring of dogma and devotion.

The field of Catholic apologetics has yielded an abundant harvest in the last generation. I will not try to duplicate the efforts of authors whose apologetic skills far exceed my own. I stand in awe of their achievements, and I urge you to get to know their work: James Akin, Dave Armstrong, Mark Brumley, Jeff Cavins, David Currie, Father George Duggan, Marcus Grodi, Father John Hardon, S.J., Thomas Howard, Kenneth J. Howell, Karl Keating, Peter Kreeft, Patrick Madrid, Rosalind Moss, Father William Most, Father Mitch Pacwa, S.J., Stephen Ray, Alan Schreck, David Scott, Mark Shea, and Tim Staples. They are worthy successors to the ancient apologists, and I invoke their names with admiration, but also with the affection of long-standing friendship. Some of them have been around long enough to have influenced my conversion to Catholicism back in 1986.

When you read the works of these authors, you see the sort of apologetics St. Peter was talking about—apologetics that draws its strength from theology, that is dependent on theology, and that inspires us to pursue theology with a ravenous desire. That's what their work has done for me, and that's why I'm writing this work for you.

Two

OURS TO REASON WHY

On Seeing, Believing, and Flying

I have a friend who was raised in a Christian home, but fell away from faith for most of his adult life. He wasn't hostile toward religion; he just felt that he and his family didn't need it, so he didn't really discuss it with his children. The kids grew up aware only of the stereotypes of religion that recur in movies and on television. Now returned to the fold, my friend recently said that his children, now adults themselves, "pretty much think that religious people are ignorant. They equate religion with prejudice, backwardness, and resistance to progress. Faith, for them, is the opposite of science."

Those presuppositions lie behind many ongoing stories told in the media. Whether the subject at hand is abortion law, the teaching of evolution, or the debate over Internet pornography, the narrative portrays an era of scientific enlightenment and freedom besieged by religious forces of superstition and oppression. The stakes are high, the newspapers warn us. Science's era of triumph could, at any moment, collapse into a faith-based dark age.

In this story line—the so-called “metanarrative” shared by modernists and postmodernists—Christians are knee-jerk anti-intellectuals whose faith is incompatible with rational thought. The inner life of these imaginary believers would fit Tennyson’s description of the minds of brigadiers in battle: “Ours is not to reason why . . . Ours is but to do and die.”

Some secularist commentators see faith as being so incompatible with reason that they treat Christianity as a pathological break with reality. I’ve heard some call it “Christ-psychosis.” Those who want to gain a public hearing tend to use milder language. Richard Dawkins and Daniel Dennett, both scientists who are antireligion, take a more positive approach to the problem, describing atheists as “brights” and leaving their hearers to draw the implicit corollary about the dim-witted people who believe in God.

All this will appear strange to believers, who know firsthand that faith is compatible with freedom—in fact, faith is liberating—and who know that faith is compatible with reason—in fact, the groundbreakers in many sciences were devout believers. Witness the accomplishments of Nicolaus Copernicus (a priest) in astronomy, Blaise Pascal (a lay apologist) in mathematics, Gregor Mendel (a monk) in genetics, Louis Pasteur in biology, Antoine Lavoisier in chemistry, John von Neumann in computer science, and Enrico Fermi and Erwin Schrodinger in physics. That’s a short list, and it includes only Roman Catholics; a long list could continue for pages. A roster that included other believers—Protestants, Jews, and unconventional theists like Albert Einstein, Fred Hoyle, and Paul Davies—could fill a book.

SOAR ALL OVER

In the real world, in the everyday lives of billions of believers—not least of them scientists—faith and reason coexist without contradiction. I would venture to say that Pope John Paul II was a more precise observer of empirical reality than Drs. Dawkins and Dennett. In beginning his encyclical letter on faith and reason (aptly titled *Faith and Reason*), he put the matter poetically: “Faith and reason are like two wings on which the human spirit rises to the contemplation of truth.”

Faith and reason are indeed complementary faculties that we use to think about the truth. When any winged creature (or mechanism) tries to fly on just one wing, it falls to the ground. In a similar way, when we human beings try to wing it with just one faculty, we crash.

I am not saying that non-Christians are unreasonable or unscientific people. I do not wish to dismiss the radical secularists as they have dismissed religious believers. I am saying, however, that all human thinking involves elements of both faith and reason. St. Augustine asserted a fact, not an article of faith, when he stated, “I believe that I may understand.” Reason must always proceed from a set of unprovable first principles. This faith is, for the most part, tacit, unacknowledged, or taken for granted; but it is *faith* nonetheless.

We need not consult with Christian saints in order to reach that conclusion. I myself found it first in the work of the twentieth-century scientist Michael Polanyi. A distinguished physical chemist and philosopher, Polanyi effectively demolished the myth of scientific “objectivity” and “detachment.” He pointed out that it was

impossible for scientific observers to detach themselves from the human condition or from their own culture. He observed that nearly all scientific knowledge proceeded from tacit assumptions and relied upon *trust* in a community of colleagues, in regulations, and in some authority.

A scientist must put *faith* in the experimental data reported by other scientists, and in the institutions that sponsored those scientists, and in the standards by which those scientists received their credentials. A scientist must put faith in the authority of the journals that publish the results of various studies. Finally, but perhaps most fundamentally, a scientist must trust that empirical reality is indeed perceptible and measurable, and that the laws of cause and effect will apply universally. No scientific endeavor can proceed if the experimenter subjects every phenomenon to radical doubt, disqualifying his own observations as well as those of his peers.

Polanyi concluded that science proceeds from a trust that is “fiduciary”—a word that derives from the Latin root meaning “faith-based.” Such faith is well placed and well founded, and it enables science to proceed apace; but, nonetheless, it is a species of *faith*, not an absolutely certain knowledge. “We must now recognize belief once more as the source of all knowledge, . . .” Polanyi said. “No intelligence, however critical or original, can operate outside such a fiduciary framework.”

Secularism’s attempts to replace the authority of religion with a supposed “authority of experience and reason” has proven, in Polanyi’s words, “farcically inadequate” and has “enlisted man’s highest aspirations in the service of soul-destroying tyrannies.”

The alternative to such tyrannies is the realism described by Pope John Paul and by St. Augustine. “Faith and reason are like two wings on which the human spirit rises to the contemplation of truth.” “I believe that I may understand.”

You don’t need to be Christian to affirm those truths—or the other natural conditions of human inquiry. And we should establish these conditions at the outset, because they will provide the common language for our conversation with nonbelievers. For if our hearers disdain the Bible, it will do us no good to cite scriptural proof-texts at them. But logic is quite another matter; and that’s where we’ll, logically, proceed from here.

FOUR GIVENS

It’s a dangerous thing to say that logic is universally recognized, because, in a sense, it’s not. There are people today—very intelligent people—who deny the validity of logic. They claim that its laws are merely a manifestation of certain power structures. They argue that logic’s force is imaginary, culturally conditioned, Western in origin, or even gender-biased. And all the people who condemn logic in this way do so in ingenious arguments that proceed . . . according to the rules of logic!

It’s inescapable. Logic is simply a reflection of how the mind structures its thought, which is itself a reflection of the very structure of reality. The laws of logic may have been articulated by a certain Western philosopher in the ancient world, but they were observed tacitly by his Eastern contemporaries and predecessors.

Logic is an instrument of reason. It is not, as some would have us believe, merely a set of rules for self-consistency. As the inimitable G. K. Chesterton noted, no one is more self-consistent than a madman. If he begins with the fantasy that he is Napoleon, then he rightly draws the conclusion that he should be ruling Europe. But the principles of logic are principles of reasoning about the real world.

If we discard logic, we have only unprincipled assertion, the

force of which depends upon the brute strength (or weapons) of the person staking his claim. If you wish to *demonstrate* logic's inadequacy, you must make your demonstration in a logical way. Your own mind will demand it, as will your conversation partner.

There are excellent books that will teach you the science of logic, and I heartily recommend these as preparation for the work of an apologist or evangelist. It's a matter of charity for us to meet our dialogue partners on common ground; and logic is a necessary component of any relationship that is dia-logic. For this book, however, I wish to cover just four brief points—four propositions that are universally accepted as true, and are practically undeniable. As such, they are the best starting points for dialogue or argument over God's existence.

I. **The principle of non-contradiction.** This is a fairly simple concept, though it's hard to state it simply. Something (let's call it *A*) cannot be both *A* and *not A* at the same time and in the same way. Contradictions are nonsense. I cannot be Scott Hahn and not Scott Hahn. Or to use Aristotle's example: a certain road could not be the road to Megara and, at the same time, *not* be the road to Megara. Some ancients tried to play with words and say that all propositions were simultaneously true and false. But Aristotle observed that these philosophers could not live their lives that way. They would still take the road to Megara when they wanted to reach the city of Megara. Moreover, when they denied the law of non-contradiction, their denial presumed its validity. After all, they assumed the *unequivocal truth* of their own statement denying the very possibility of an unequivocally true statement about reality. Their statement is self-destructive because things just cannot *be* that way.

2. **The general reliability of sense perception.** Our senses correspond to reality as it exists independent of our perceptions. If someone tells you your senses are unreliable, ask him how he knows it. And if he appeals to optical illusions or auditory illusions to show that the senses can be deceived, point out that we know those optical illusions to be *illusions* only because some other sense overrides the sense that's deceived, or our reason discovers the cause of the illusion. If a pencil stuck in a glass of water appears to be bent, we know that it's not because we run our fingers along the length of the pencil and our fingers find it intact. This difference between what the two senses "report" jolts our reason into discovering the laws of optics. We trust our sense of touch and allow it to override the initial misapprehension of the sense of sight. We trust our reason to discover why the senses can sometimes seem to misrepresent what is really there. Sense perception is *generally* reliable. Reason makes up for the deficit. But it is as foolish to reject the senses because they sometimes seem to deceive us as it is to reject mathematics because we sometimes make mistakes in our checkbooks.
3. **The principle of causality.** For every effect, there must be a cause. By "effect" I mean any contingent, finite, or changing thing, and I lay aside questions about the strange subatomic world that seems, to some, to violate this law. We want to focus on the level of reality in which we live and act, and on this everyday level even the "subatomic" physicist lives and acts according to the law of causality. This law underlies both the working of logic and of sense perception. We see flowers, chocolates, and then a kiss, and we conclude that there is a causal relationship at work. Scientists of necessity must assume every effect they are

investigating has a cause, for otherwise they would have nothing to explain and they could explain nothing. If someone argued against causality, once again he would be presenting a self-destructive argument—hoping to cause a change in your mind!

4. **The notion of self-consciousness.** This is what tells me that I exist. I may believe that everything is an illusion, but still I am left with myself—the entity that is entertaining the illusion. Self-consciousness presumes that there is a self, whatever that self may be. I know that I exist, even if I try to pretend that I am uncertain about everything else.

There is much more to logic than these four points, but you can count these among the most important feathers (so to speak) on reason's wing. They make it possible for reason to take flight.

A MIND FOR WHAT MATTERS

Even if we can agree on some basic terms, however, we may encounter other apparent obstacles, but sometimes these are easily overcome. Some people, for example, describe themselves as *materialists*, *objectivists*, or *empiricists*. These tendencies need not be obstacles to dialogue, even though they seem to banish all things spiritual from discourse. In fact, it's far easier to dialogue with these people than with more radical skeptics, like those who doubt the very notion of reality. With the former group, we can at least agree on the importance of material reality, objective reality, and empirical reality. Christians are at ease in creation, because our Father God created the world and all that's in it.

As for those who do not believe that reality exists outside the mind—well, what can you say, if you yourself are just part of the

illusion? The philosopher George Berkeley tried to argue for the nonexistence of matter. Samuel Johnson kicked a stone and said: "Thus I refute thee." Johnson was demonstrating the general reliability of sense perception. Or more dramatically, there's the character in one of Hilaire Belloc's novels. After hearing a self-absorbed skeptic at a pub drone on far too long, he threw a beer in his face and shouted, "I baptize thee in the name of the five senses!" It's all well and good to say that reality exists only in one's mind, but those who believe it should still look both ways before crossing the street.

But let's return to the materialists, objectivists, and empiricists. What we need to demonstrate to skeptics is that human beings naturally reason from the visible to the invisible, from the sensible to the insensible. It is something characteristically human. We do it from the time we're babies. An infant encounters certain fluids, and warmth, and high-pitched sounds, and he associates them together, first in the concept "mother," and later in the word "Mama." We see letters and recognize that they represent sounds. We gather the letters into words that represent things that we see around us. We count things from the time we are small, but numbers themselves are immaterial abstractions, and the most hard-headed scientist uses these abstractions all the time.

Most people, too, recognize the need for some immaterial moral principles as well: justice, fairness, freedom, love, compassion, solidarity, and so on. These are abstractions, manifested in concrete events, but not exhausted by those events. We measure the material manifestations against the abstract ideal we hold in our minds.

Music and art, too, move us from the sensory to the abstract. Most people who listen to a Mozart composition will conclude that its thousands of variations in pitch add up to something, evoke something, stand for something greater. The sounds of Mozart move us from the sensible to the abstract, the sensible to

the insensible. Aesthetic experiences are not important to everyone, but they can be a profound mystery to an unbeliever who is open to their power, a spiritual foot in the materialist's door.

Materialists, objectivists, and empiricists may be well on their way to the kingdom. As we show them the layers of the universe—even in the natural order—we are preparing them to understand the sacramentality of creation. As the poet Gerard Manley Hopkins said: "The world is charged with the grandeur of God."

TRUST, BUT VERIFY

It is entirely rational, then, for us to reason from the visible to the invisible. In fact, this is what scientists do all the time. Physicist John Polkinghorne once noted: "No one has ever seen a quark, and we believe that no one ever will. They are so tightly bound to each other inside the protons and neutrons that nothing can make them break out on their own. Why, then, do I believe in these invisible quarks? . . . [B]ecause quarks make sense of a lot of direct physical experience, such as the patterns in which particles can be grouped, and the strange way in which projectiles, like electrons, bounce back from collisions with protons and neutrons, just as if there were some tough and tiny constituents sitting inside." He went on to list other unseen phenomena in which he firmly believed, including black holes, pulsars, and quasars.

Now, not all scientists are as eager as Polkinghorne to acknowledge what Polanyi called the fiduciary aspect of their work. Nor will the most brilliant scientists necessarily be the most reasonable and logical thinkers. The physicist Robert March once wrote of old age as the time "when good physicists often turn into bad philosophers." Nevertheless, we can certainly show profound respect for these scientists' achievements and intelligence, without at-

tributing infallibility to them in all matters. We might respectfully point out that they obey the laws of logic even if they deny the validity of those laws, and that they practice a sort of faith, even if they dismiss religious faith as superstition. The question that should remain is whether religious faith, and specifically Catholic faith, is indeed unreasonable. And, as I pointed out earlier, there has always been an impressive array of scientists to attest to Christianity's persuasive power.

These are men and women who soar with both wings—as we want to do. If we want to be true to our human nature, we should eagerly seek to develop our faith and reason. The historian Etienne Gilson described the well-rounded thinker as someone "who does not like to believe what he can know, and who never pretends to know what can be but believed, and yet a man whose faith and knowledge grow into an organic unity because they both spring from the same divine source."

So faith, in a sense, depends upon reason—not in the way that water depends upon hydrogen, but more in the way that each spouse depends upon the other in the home. It is possible for one spouse to go it alone, but the task is difficult and always a struggle. In the same way, it is possible for either faith or reason to struggle mightily and drag us much of the way to understanding, but that's not the way of human nature.

Faith and reason are indeed interdependent. One of the great secrets of the universe is that reason leans on faith every bit as much as faith leans on reason. Rightly did St. Augustine say, "I believe that I may understand." It's not that people who lack Christian faith cannot know anything. But anyone who knows anything must first put faith in principles that are tacit, unproven, and unprovable. We have good reasons for believing such things. But we don't have proof. We believe that we may understand.

Believer or not, anyone who tries to fly on one wing will inevitably fall into one excess or another. The Catholic Church condemns both the disordered reliance on faith alone (*fideism*) and the disordered reliance on reason alone (*rationalism*).

“For we walk by faith, not by sight,” St. Paul said (2 Cor 5:7). But that doesn’t make it a virtue for us to cross the street with our eyes closed. God made our eyes, and He made them that we might see.

Three

NATURAL REASONS

On the Persuasive Power of the Universe

In the last chapter, I invoked the physicist John Polkinghorne, who described his faith in unseen particles and events, like quarks and quasars. These hypothetical phenomena are the best ways he has found to make sense of the strange phenomena he can see, like the movement of electrons. Polkinghorne believes that it is possible “to engage in a similar strategy with regard to the unseen reality of God. His existence makes sense of many aspects of our knowledge and experience.” He holds that “science and religion are intellectual cousins under the skin. Both are searching for motivated belief.”

When we explain and defend the faith, we are trying to help develop that motivation. That’s why we give *reasons* to believe. That’s why St. Peter urges us to give “an account for the hope” that is in us. Those reasons, that account, might provide sufficient motives for belief; so that our hearers might give the assent of faith.

Polkinghorne is affirming the possibility of “natural theology.” Natural theology is the branch of philosophy that treats of God’s existence and attributes by means of reason, without relying on the