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MIND, LANGUAGE AND SOCIETY

PHILOSOPHY IN THE REAL WORLD

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Basic Metaphysics: Reality and Truth

The Enlightenment Vision: Reality and Its Intelligibility

From the time of the scientific revolutions of the seventeenth century until the early decades of the twentieth, it was possible for an educated person to believe that he or she could come to know and understand the important things about how the universe works. From the Copernican Revolution, through Newtonian mechanics, the theory of electromagnetism, and Darwin's theory of evolution, the universe made a kind of sense, had a kind of intelligibility, and was becoming ever more accessible through the steadily increasing growth of knowledge and understanding. It was even possible for educated people to feel that scientific knowledge was perfectly consistent with, even an adjunct to, their religious faith. This belief required making a distinction between two metaphysical realms—the mental or spiritual on the one hand, and the physical or material on the other. Religion owned the spiri-

tual realm, science the material. This distinction between the realms of the mind and the body seemed independently justifiable; indeed, it had a long history and received its most famous formulation in the work of René Descartes, a philosopher who was very much part of the seventeenth-century scientific revolution. Even the great "subversive" revolutionaries of the late nineteenth and early twentieth centuries, Sigmund Freud and Karl Marx, though they rejected Cartesian dualism, thought of their work as part of the growth of science as it had been conceived since the seventeenth century. Freud thought he was creating a science of the mind, Marx a science of history and society.

There was, in short, a long period in Western civilization when it was assumed that the universe was completely intelligible and that we were capable of a systematic understanding of its nature. Because these twin assumptions found expression in a series of classic statements in the European Enlightenment, I propose to call them "the Enlightenment vision." The high-water mark of this optimistic vision came in the late nineteenth century, especially in Bismarckian Germany and Victorian England, and two of its most eloquent exemplars were Gottlob Frege, a German mathematician and philosopher, and Bertrand Russell, a British logician and philosopher.

Beginning in the early decades of the twentieth century, a number of events, intellectual and otherwise, happened to challenge and undermine this traditional optimism both about the nature of things and about our ability to comprehend that nature. My guess is that the greatest single psychological blow to the intellectual optimism of the nineteenth century was not an intellectual development at all but rather the catastrophe of the First World War. There were also a number of purely intellectual challenges, however, to the Enlightenment vision. Both the intelligibility of the real world and our capacity to comprehend the world seemed to come under attack from various quarters. First, relativity theory challenged our

most fundamental assumptions about space and time, and about matter and energy. How, for example, are we to understand a universe where, according to Albert Einstein, if we went to a star at nearly the speed of light and returned in ten years we would be ten years older but everything on earth would be a hundred years older? Second, the discovery of the set theoretical paradoxes seemed to challenge the rationality of that very citadel of rationality, mathematics. If the foundations of mathematics contain a contradiction, then nothing seems secure. As Frege himself said when confronted with Russell's paradox, "Your discovery of the contradiction has surprised me beyond words and, I should almost like to say, left me thunderstruck, because it has rocked the ground on which I had meant to build arithmetic." It seems "to undermine not only the foundations of my arithmetic but the only possible foundations of arithmetic as such."¹ Third, Freudian psychology was taken not as a gateway to an improved rationality but as a proof of the impossibility of rationality. According to Freud, the rational consciousness is only an island in a sea of the irrational unconscious. Fourth, Kurt Gödel's incompleteness proof seemed to deliver another blow to mathematics. There are true statements in mathematical systems that we can all see to be true but that cannot be proven to be true within those systems. Prior to Gödel, it had seemed that the very meaning of "true" in mathematics implied "mathematically provable." Fifth, and worst of all, on certain interpretations, quantum mechanics seemed simply unassimilable to our traditional conceptions of the determinacy and independent existence of the physical universe. Quantum mechanics seemed to show both that physical reality at the most fundamental level is indeterministic and that the conscious observer, in the very act of observation, is in part creating the very reality he or she is observing. Sixth, in the late twentieth century the rationality of science itself came under attack from authors such as Thomas Kuhn and Paul Feyerabend, who argued that science itself was infected with arbitrariness

and irrationality. Kuhn was taken to have shown that a major scientific revolution is not just a new description of the same reality, but that it creates a different "reality." "After a revolution," he says, "scientists work in a different world." And Ludwig Wittgenstein, the most influential philosopher of the twentieth century, is taken by many to have shown that our discourse is a series of mutually untranslatable and incommensurable language games. We are not engaged in one big language game, in which there are universal standards of rationality and everything is intelligible to everybody, but in a series of smaller language games, each with its own inner standards of intelligibility.

I could continue this dreary list. For example, several anthropologists have claimed that there is no universally valid rationality, but that different cultures have different rationalities. Similar versions of relativism have become common in the intellectual movements known collectively as "postmodernism." Postmodernists see themselves as challenging the Enlightenment vision.

Just to put my cards on the table at the beginning: I accept the Enlightenment vision. I think that the universe exists quite independently of our minds and that, within the limits set by our evolutionary endowments, we can come to comprehend its nature. I believe that the real change since the nineteenth century is not that the world has become unintelligible in some exciting and apocalyptic way, but that it is a lot harder to understand for the rather boring and unexciting reason that you have to be smarter and you have to know a lot more. For example, to understand contemporary physics you have to know a lot of mathematics. I will not attempt to answer all of these challenges to the Enlightenment vision. That would require several books. Rather, since my main aim is constructive, I will briefly state why I am not bothered by the arguments I just presented, and then, in more detail, I will respond to various aspects of the "postmodernist" challenge.

First, relativity theory is not a refutation of traditional physics, but its extension. It requires us to think in counter-intuitive ways about space and time, but that is no threat to the intelligibility of the universe. It is worth recalling that Newtonian mechanics also seemed paradoxical in the seventeenth century. Second, the logical paradoxes, both semantic and set theoretical, seem to me to show nothing except certain philosophical errors we can make. Just as Zeno's famous paradoxes about space, time, and motion do not show the unreality of space, time, or motion,³ so the logical paradoxes do not show any contradictions at the heart of language, logic, and mathematics. Third, Freudian psychology, whatever its ultimate contribution to human culture, is no longer taken seriously as a scientific theory. It continues to exist as a cultural phenomenon, but few serious scientists suppose it gives a scientifically well-substantiated account of human psychological development and pathology. Fourth, Gödel's proof is a kind of support to the traditional rationalist conception that separates ontology (what exists) from epistemology (how we know). Truth is a matter of correspondence to the facts. If a statement is true, there must be some fact in virtue of which it is true. The facts are a matter of what exists, of ontology. Provability and verification are matters of finding out about truth and thus are epistemic notions, but they are not to be confused with the facts we find out about. Gödel shows conclusively that mathematical truth cannot be identified with provability. Fifth, quantum mechanics, on some interpretations, I agree, is a serious challenge to the Enlightenment vision, and I am not technically competent to make a serious assessment of its significance. I want to distinguish, however, between the claim that quantum mechanics shows an indeterminacy in the relation of micro to macro levels on the one hand, and the claim that it shows that reality does not have an existence independent of observers on the other. As far as I can tell, we simply have to accept a certain level of statistical indeterminacy in micro-macro rela-

tions as a fact about reality. As far as I can see, however, there is nothing in the actual results in quantum mechanics that forces us to the conclusion that the conscious observer creates in part the reality observed. Such paradoxes are not in the actual *results* of the experiments, but in the varying *interpretations*⁴ of the results, and nothing forces us to such a paradoxical and counterintuitive interpretation, though some physicists have accepted that interpretation. Next, efforts to prove relativism about rationality—that all standards of rationality are culturally relative—invariably end up showing the reverse. For example, to establish cultural relativism the anthropologist tells us that the Nuer regard twin siblings as birds and that in certain ceremonies the cucumber is the head of an ox. When he tells how the Nuer make sense of these claims, however, it invariably turns out that he can tell us how they make sense *by our standards* and thus how they can make sense to us.⁵ It turns out that the apparent irrationality within a tribal culture can be made intelligible by *universal* standards of rationality.

I will have more to say about Kuhn and postmodernist challenges to the Enlightenment vision later.

In this book, I want to use the contemporary period of confusion as an opportunity to undertake a very traditional philosophical enterprise of giving an account of several apparently diverse phenomena in order to show their underlying unity. I do not believe that we live in two worlds, the mental and the physical—much less in three worlds, the mental, the physical, and the cultural—but in one world, and I want to describe the relations between some of the many parts of that one world. I want to explain the general structure of several of the philosophically most puzzling parts of reality. Specifically, I want to explain certain structural features of mind, language, and society, and then show how they all fit together. My aim, then, is to make a modest contribution to the Enlightenment vision.

Introducing Philosophy

This project may sound unduly ambitious, but in at least one important sense this is an “introductory book” in philosophy: no previous technical philosophical training or knowledge is required on the part of the reader.

Books in philosophy that are introductory in this sense usually take one of two forms, and since this one takes neither, I think it important to make the distinction between it and other such books at the outset. The first and perhaps most common type of introductory book is one that takes the reader through a list of famous philosophical problems, such as free will, the existence of God, the mind-body problem, the problem of good and evil, or the problem of skepticism and knowledge. A good recent example of this sort of book is Thomas Nagel’s *What Does It All Mean?*⁶ The second sort of introductory book is a short history of the subject. The reader is given a brief account of the major philosophical thinkers and doctrines, beginning with the pre-Socratic Greeks and ending with some prominent recent figure, such as Wittgenstein, or movement, such as existentialism. Probably the most famous book of this type is Bertrand Russell’s *History of Western Philosophy*.⁷ Russell’s book is weak on scholarship, but I think it has done much more to encourage the spread of philosophical thought than more accurate histories because anybody can read it with pleasure and with at least some understanding. I read it as a teenager, and it made a big impression on me. Jimmy Carter is alleged to have kept it on his bedside table when he was president.

The present book is neither a survey of big questions nor a history. Indeed, it is of a type that has gone out of fashion and that many good philosophers would think impossible. It is a synthetic book in that it attempts to synthesize a number of accounts of apparently unrelated or marginally related subjects. Because we live in one world, we ought to be able to explain exactly how the different parts of that world relate to

each other and how they all hang together in a coherent whole. I want to emphasize the words *synthesis* and *synthetic* because I was brought up by—and am usually thought of as belonging to—a bunch of philosophers who think of themselves as doing something called “analytic philosophy.” Analytic philosophers take philosophical questions apart and analyze them into their component elements. They do what is called “logical analysis.” This book contains a lot of logical analysis, but it is also a book in which I put things together. It is a synthesis by an analyst. Building on my earlier writings, I want to explain how certain essential parts of mind, language, and social reality work and how they form a coherent whole.

I have three distinguishable objectives. First, I want to advance a series of theoretical claims, both about the nature of mind, language, and society and about the interrelations among them. Second, in achieving the first objective, I want to exemplify a certain style of philosophical analysis. Philosophical inquiry has important similarities with, but also dissimilarities from, other forms of inquiry, such as scientific inquiry, and I want to make them clear in the course of this discussion. Third, I want to make in passing, so to speak, a series of observations about the nature of philosophical puzzlement and philosophical problems. To put these three points more succinctly: I want to do some philosophy, in doing it I want to illustrate how to do it, and I want to make some observations about the special problems of doing it. At the end of the book I state some general conclusions about the nature of philosophy.

If I succeed in my expository ambitions, almost everything I say should sound pretty much obviously true, so obvious, indeed, that the philosophically innocent reader—the reader the book is aimed at—will sometimes wonder: Why is he bothering to tell us this? The answer is that every claim I make, even the most obvious, will be, and typically has been for centuries, a subject of controversy and even rage. Why is

that? Why is it that when we start doing philosophy we are almost inexorably driven to deny things we all know to be true—for example, that there is a real world, that we can have certain sorts of knowledge of that world, that statements are typically true if they correspond to facts in the world and false if they don't? Wittgenstein thought that the urge to philosophical error came primarily from a misunderstanding of the workings of language, and also from our tendency to overgeneralize and to extend the methods of science into areas where they are not appropriate. I think these are indeed some of the sources of philosophical error—but only some of them. I will point out others as we go along, others that are more reprehensible than the sources Wittgenstein gives, sources such as self-deception and will to power.

In any case, it is worth saying what sounds obvious because what seems obvious usually only seems that way after you have said it. Before you say it, it is not obvious what it is you need to say. This book, then, may give the impression that I am taking you along a smooth and open road. That is an illusion. We are on a narrow path through a jungle. My method of exposition is to point out the path and then point to the parts of the jungle we need to avoid. Or to put the same point in a way that seems more pretentious than I intend, I try to state the truth and then state the competing falsehoods that give the statement of the truth much of its philosophical interest.

The Default Positions

On most of the major philosophical issues there is what we might call, using a computer metaphor, the default position. Default positions are the views we hold prereflectively so that any departure from them requires a conscious effort and a convincing argument. Here are the default positions on some major questions:

- There is a real world that exists independently of us, independently of our experiences, our thoughts, our language.
- We have direct perceptual access to that world through our senses, especially touch and vision.
- Words in our language, words like *rabbit* or *tree*, typically have reasonably clear meanings. Because of their meanings, they can be used to refer to and talk about real objects in the world.
- Our statements are typically true or false depending on whether they correspond to how things are, that is, to the facts in the world.
- Causation is a real relation among objects and events in the world, a relation whereby one phenomenon, the cause, causes another, the effect.

In our ordinary everyday lives, these views are so much taken for granted that I think it is misleading to describe them as “views”—or hypotheses or opinions—at all. I do not, for example, hold the *opinion* that the real world exists, in the way I hold the opinion that Shakespeare was a great playwright. These taken-for-granted presuppositions are part of what I call the Background of our thought and language. I capitalize the word to make it clear that I am using it as a quasi-technical term, and I will explain its meaning in more detail later.

Much of the history of philosophy consists in attacks on default positions. The great philosophers are often famous for rejecting what everybody else takes for granted. The characteristic attack begins by pointing out the puzzles and paradoxes of the default position. We apparently can’t hold the default position and also believe a whole lot of other things we would like to believe. So the default position must be given up and some revolutionary new view substituted for it. Famous examples are David Hume’s refutation of the idea that causation is a real relation between events in the world,

Bishop George Berkeley’s refutation of the view that a material world exists independently of our perceptions of it, and the rejection by Descartes, as well as many other philosophers, of the view that we can have direct perceptual knowledge of the world. More recently, Willard Quine is supposed by many to have refuted the view that the words in our language have determinate meanings. And several philosophers think they have refuted the correspondence theory of truth—the view that if a statement is true, it is so typically because there is some fact, situation, or state of affairs in the world that makes it true.

I believe that in general the default positions are true, and that the attacks on them are mistaken. I think that is certainly the case with all the examples I have just presented. It is unlikely that the default positions would have survived the rough and tumble of human history for centuries, and sometimes even millennia, if they were as false as philosophers make them out to be. But not all default positions are true. Perhaps the most famous default position is that each of us consists of two separate entities, a body on the one hand, and a mind or soul on the other, and that these are joined together during our lifetimes but are independent to the extent that our minds or souls can become detached from our bodies and continue to exist as conscious entities even after our bodies are totally annihilated. This view is called “dualism.” I think it is false, and I will say why in chapter 2. In general, however, the default positions are more likely to be right than their alternatives, and it is a sad fact about my profession, wonderful though it is, that the most famous and admired philosophers are often the ones with the most preposterous theories.

It is tempting to think that what I have been calling the default positions are what common sense would call “common sense.” I think that is a mistake. “Common sense” is not a very clear notion, but as I understand it, common sense is largely a matter of widely held and usually unchallenged be-

liefs. Though there is no sharp dividing line, what I have been calling the default positions are much more fundamental than common sense. It is, I guess, a matter of common sense that if you want people to be polite to you, you had better be polite to them. This sort of common sense has no opinion about basic metaphysical questions such as the existence of the external world or the reality of causation. Common sense is, for the most part, a matter of common opinion. The Background is prior to such opinions.

Some of the most interesting questions in philosophy are those that arise out of a straight clash or even logical inconsistency between two default positions. For example, it seems to me that people typically talk and think as if they supposed that we have free will of a sort that precludes causal determinism and at the same time that all our acts have deterministic causal explanations. Throughout this book we examine various default positions and give special attention to the clash of such positions. In this chapter I discuss a cluster of default positions centered on the notions of reality and truth.

Reality and Truth: The Default Position

Among the default positions that form our cognitive Background, perhaps the most fundamental is a certain set of presuppositions about reality and truth. Typically when we act, think, or talk, we take for granted a certain way that our actions, thoughts, and talk relate to things outside us. I represent this as a set of statements, but that is misleading if it suggests that when we are actually talking, thinking, or otherwise acting, we are also holding a theory. The set of statements I give you about reality and truth can be treated as a theory or even a set of theories, but when the Background is functioning—when it is, so to speak, doing its job—we do not need a theory. Such presuppositions are prior to theories.

Anyway, when we act or think or talk in the following sorts of ways we take a lot for granted: when we hammer a nail, or order a takeout meal from a restaurant, or conduct a lab experiment, or wonder where to go on vacation, we take the following for granted: there exists a real world that is totally independent of human beings and of what they think or say about it, and statements about objects and states of affairs in that world are true or false depending on whether things in the world really are the way we say they are. So, for example, if in pondering my vacation plans I wonder whether Greece is hotter in the summer than Italy, I simply take it for granted that there exists a real world containing places like Greece and Italy and that they have various temperatures. Furthermore, if I read in a travel book that the average summer temperature in Greece is hotter than in Italy, I know that what the book says will be true if and only if it really is hotter on average in the summer in Greece than in Italy. This is because I take it for granted that such statements are true only if there is something independent of the statement in virtue of which, or because of which, it is true.

These two Background presuppositions have long histories and various famous names. The first, that there is a real world existing independently of us, I like to call “external realism.” “Realism,” because it asserts the existence of the real world, and “external” to distinguish it from other sorts of realism—for example, realism about mathematical objects (mathematical realism) or realism about ethical facts (ethical realism). The second view, that a statement is true if things in the world are the way the statement says they are, and false otherwise, is called “the correspondence theory of truth.” This theory comes in a lot of different versions, but the basic idea is that statements are true if they correspond to, or describe, or fit, how things really are in the world, and false if they do not.

Among the mind-independent phenomena in the world are such things as hydrogen atoms, tectonic plates, viruses,

trees, and galaxies. The reality of such phenomena is independent of us. The universe existed long before any human or other conscious agent appeared, and it will be there long after we have all passed from the scene.

Not all of the phenomena in the world are mind-independent. For example, money, property, marriage, wars, football games, and cocktail parties are all dependent for their existence on conscious human agents in a way that mountains, glaciers, and molecules are not.

I regard the basic claim of external realism—that there exists a real world that is totally and absolutely independent of all of our representations, all of our thoughts, feelings, opinions, language, discourse, texts, and so on—as so obvious, and indeed as such an essential condition of rationality, and even of intelligibility, that I am somewhat embarrassed to have to raise the question and to discuss the various challenges to this view. Why would anybody in his right mind wish to attack external realism? Well, that is in fact a rather complicated question, and one that I go into in detail later. Here, however, I want to note that attacks on external realism do not stand in isolation. They tend philosophically to go hand in hand with challenges to other features of our Background presuppositions that also constitute default positions. Along with realism we generally assume that our thoughts, talk, and experiences relate directly to the real world. That is, we assume that when we look at objects such as trees and mountains, we typically perceive them; that when we talk, we typically use words that refer to objects in a world that exists independently of our language; and that when we think, we often think about real things. Furthermore, as I mentioned earlier, what we say about such objects is true or false depending on whether it corresponds to how things are in the world. Thus, external realism underlies other fundamental philosophical views that are frequently denied—the referential theory of thought and language, and the correspondence theory of truth. Thinkers who wish to

deny the correspondence theory of truth or the referential theory of thought and language typically find it embarrassing to have to concede external realism. Often they would rather not talk about it at all, or they have some more or less subtle reason for rejecting it. In fact, very few thinkers come right out and say that there is no such thing as a real world existing absolutely, objectively, and totally independently of us. Some do. Some come right out and say that the so-called real world is a “social construct.” But such direct denials of external realism are rare. The more typical move of the antirealists is to present an argument that seems to challenge the default position as I have described it, and then to claim that the challenge justifies some other position they wish to defend, some version of views variously called social constructionism, pragmatism, deconstructionism, relativism, postmodernism, and so forth.

The logical structure of the situation faced by the antirealist is this:

1. Suppose external realism is true. Then there exists a real world, independently of us and our interests.
2. If there exists a real world, then there is a way that the world really is. There is an objective way that things are in the world.
3. If there is a way things really are, then we ought to be able to say how they are.
4. If we can say how things are, then what we say is objectively true or false depending on the extent to which we succeed or fail in saying how they are.

Adherents of forms of subjectivism or relativism who would like to reject the fourth proposition are embarrassed by the first, which they feel has to be rejected or, as they sometimes say, “called in question.”

Attacks on external realism are nothing new. They go back many centuries. Perhaps the most famous is Bishop Berke-

ley's claim that what we think of as material objects are really just collections of "ideas," by which he meant states of consciousness. And indeed, this tradition, variously called "idealism" or "phenomenalism," continues right into the twentieth century. This view came to be called "idealism" because it asserts that the only reality is that of "ideas" in this special sense of the word. Probably the most influential idealist of all time was Georg Friedrich Hegel. Idealism's basic tenet is that reality is ultimately not a matter of something existing independently of our perceptions and other representations, but rather that reality is constituted by our perceptions and other sorts of representations. Instead of thinking of our claims to knowledge as being answerable to an independently existing reality, we make reality answerable to our own representations. I believe the most sophisticated version of the idealistic position is found in the philosophy of Immanuel Kant, who thought that what he called the "phenomenal world"—the world of chairs, tables, trees, planets, and so on—consisted entirely in our representations. He also thought there actually is another world behind our phenomenal world, a world of "things in themselves," but that this world is totally inaccessible to us; we cannot even talk about it meaningfully. The empirical world—that is, the world we all experience and live in—is in fact a world of systematic appearance, a world of how things appear to us. So, on Kant's view, as on other forms of idealism, the world of tables, chairs, mountains, and meteors, as well as of space, time, and causation, is in fact a world of mere appearances. The difference between Kant and other idealists such as Berkeley is that the others thought that appearances—or as Berkeley called them, "ideas"—are the only reality, whereas Kant thought that in addition to the world of appearances, there is a reality of things in themselves behind the appearances, of which we can have no knowledge whatever.

Why have so many able philosophers found idealism, in its different versions, appealing? Well, one of its advantages is

that it enables us to answer the challenge of skepticism, the view that we can't really know how the world is. Indeed, historically, idealism grew out of failures to answer skepticism of the sort advanced by Descartes. All forms of skepticism rest on the claim that we can have all of the possible evidence for any claim and still be radically mistaken. We can have the most perfect possible evidence for the existence of an external world and still be suffering from a massive hallucination. You could be deceived by an evil demon, or be a brain in a vat, or be dreaming, and so on.* The idealist solves this problem by removing the gulf between evidence and reality in such a way that the evidence coincides with reality. It then becomes a rather simple matter to distinguish those cases such as illusions, rainbows, hallucinations, and so on, that are not real from those that are constitutive of the "real world." Illusions are simply appearances that do not cohere appropriately with our other appearances. But in both illusory and nonillusory perceptions, there is nothing beyond our representations. The appeal of idealism, in short, is that the gulf between reality and appearance, the gulf that makes skepticism possible, is removed. Reality consists in systematic appearances.

I have to confess, however, that I think there is a much deeper reason for the persistent appeal of all forms of anti-realism, and this has become obvious in the twentieth century: it satisfies a basic urge to power. It just seems too disgusting, somehow, that we should have to be at the mercy of the "real world." It seems too awful that our representations should have to be answerable to anything but us. This is why people who hold contemporary versions of antirealism and reject the correspondence theory of truth typically sneer at the op-

*The "brain in a vat" is a philosopher's fantasy according to which one has all one's experiences even though one consists of only a brain in a vat of nutrients. The experiences are produced artificially by electrically stimulating the brain.

posing view. Richard Rorty, for example, refers sarcastically to "Reality as It Is in Itself."⁸

Fifty years ago it seemed that idealism was dead, and in the version represented by the line that goes from Berkeley through Hegel, this is still largely true. Recently, however, new forms of denial of realism have emerged. As Rorty puts it, "Something which seemed much like idealism began to become intellectually respectable."⁹ This comes in several versions, each typically more obscure than the last, and appears under such labels as "deconstruction," "ethnomethodology," "pragmatism," and "social constructionism." I once debated a famous ethnomethodologist who claimed to have shown that astronomers actually create quasars and other astronomical phenomena through their researches and discourses. "Look," I said, "suppose you and I go for a walk in the moonlight, and I say, 'Nice moon tonight,' and you agree. Are we creating the moon?" "Yes," he said.

In the late twentieth century, worries about skepticism have been less influential in motivating antirealism. It is not easy to get a fix on what drives contemporary antirealism, but if we had to pick out a thread that runs through the wide variety of arguments, it would be what is sometimes called "perspectivism." Perspectivism is the idea that our knowledge of reality is never "unmediated," that it is always mediated by a point of view, by a particular set of predilections, or, worse yet, by sinister political motives, such as an allegiance to a political group or ideology. And because we can never have unmediated knowledge of the world, then perhaps there is no real world, or perhaps it is useless to even talk about it, or perhaps it is not even interesting. So antirealism in the late twentieth century is somewhat bashful and evasive. When I say "bashful" and "evasive," I mean to contrast it with the bare, brute, bald assertion that I am making of the default position: there exists a real world that is totally independent of us. A world of mountains, molecules, trees,

oceans, galaxies, and so on. Notice some of the contrasting views: Hilary Putnam writes, "If one must use metaphorical language, let the metaphor be this: the mind and the world jointly make up the mind and the world."¹⁰ Jacques Derrida writes, "There exists nothing outside of texts (*Il n'y a pas de hors texte*)."¹¹ Richard Rorty writes, "I think the very idea of a 'fact of the matter' is one we would be better off without."¹² Nelson Goodman claims that we make worlds by drawing certain sorts of boundaries rather than others.

Now as we thus make constellations by picking out and putting together certain stars rather than others, so we make stars by drawing certain boundaries rather than others. Nothing dictates whether the sky shall be marked off into constellations or other objects. We have to make what we find, be it the Great Dipper, Sirius, food, fuel, or a stereo system.¹³

What should we say in answer to these challenges to the default position? I will answer several of the most common forms of argument, but I have to confess at the outset that I don't think it is the argument that is actually driving the impulse to deny realism. I think that as a matter of contemporary cultural and intellectual history, the attacks on realism are not driven by arguments, because the arguments are more or less obviously feeble, for reasons I will explain in detail in a moment. Rather, as I suggested earlier, the motivation for denying realism is a kind of will to power, and it manifests itself in a number of ways. In universities, most notably in various humanities disciplines, it is assumed that, if there is no real world, then science is on the same footing as the humanities. They both deal with social constructs, not with independent realities. From this assumption, forms of postmodernism, deconstruction, and so on, are easily developed, having been completely turned loose from the tiresome moorings and constraints of having to confront the real

world. If the real world is just an invention—a social construct designed to oppress the marginalized elements of society—then let's get rid of the real world and construct the world we want. That, I think, is the real driving psychological force behind antirealism at the end of the twentieth century.

However, there are two logical points that I need to make immediately. First, pointing out the psychological origins of antirealism is not a refutation of antirealism. It would be a genetic fallacy to suppose that by exposing the illegitimate origins of the arguments against realism, we somehow refute the arguments. That is not enough. Second, since arguments have been presented against realism, we have to answer them in detail. So, here goes.

Four Challenges to Realism

The most common contemporary argument against realism, as I said, is perspectivism. The argument takes different forms, but the thread that runs through them is that we have no access to, we have no way of representing, and no means of coping with the real world except from a certain point of view, from a certain set of presuppositions, under a certain aspect, from a certain stance. If there is no unmediated access to reality, then, so the argument goes, there is really no point in talking about reality, and indeed, there is no reality independent of the stances, aspects, or points of view. A good statement of such perspectivism is to be found in a textbook on the philosophy of social science by Brian Fay. (Often, by the way, we can find out more about what is going on in a culture by looking at undergraduate textbooks than by looking at the work of more prestigious thinkers. The textbooks are less clever at concealment.)

Perspectivism is the dominant epistemological mode of contemporary intellectual life. *Perspectivism* is the view

that all knowledge is essentially perspectival in character; that is, knowledge claims and their assessment always take place *within* a framework that provides the conceptual resources in and through which the world is described and explained. According to perspectivism, no one ever views reality directly as it is in itself; rather, they approach it from their own slant with their own assumptions and preconceptions.¹⁴

So far, this does not seem to be an attack on even the most naive form of realism. It just says that in order to know reality, you have to know it from a point of view. The only mistake in this passage is that somehow or other, knowing reality directly as it is in itself requires that it be known from no point of view. This is an unjustified assumption to make. For example, I directly see the chair in front of me, but of course I see it from a point of view. I know it directly from a perspective. Insofar as it is even intelligible to talk of knowing "reality directly as it is in itself," I know it directly as it is in itself when I know that there is a chair over there because I see it. That is to say, perspectivism, so defined, is not inconsistent with either realism or the doctrine of epistemic objectivity that says we have direct perceptual access to the real world.

The clincher is presented when Fay goes on to say that perspectivism makes it impossible to have knowledge of independently existing facts. Here is how the argument goes:

Note here that it is never phenomena themselves which are facts, but *phenomena under a particular description*. Facts are linguistically meaningful entities which select out from the stream of events what happened or what exists. But this means that in order for there to be facts at all there must be a vocabulary in terms of which they can be described. Without a prior vocabulary which it describes or brings to a situation, there would be no facts whatsoever.

And in the next paragraph:

Put succinctly: Facts are rooted in conceptual schemes.¹⁵

This whole passage seems to me typical of the arguments used against external realism in contemporary philosophy. They are all bad arguments. It is true that we need a vocabulary to *describe* or *state* the facts. But just as it does not follow from the fact that I see reality always from a point of view and under certain aspects that I never directly perceive reality, so from the fact that I must have a vocabulary in order to state the facts, or a language in order to identify and describe the facts, it simply does not follow that the facts I am describing or identifying have no independent existence. The fact that there is saltwater in the Atlantic Ocean is a fact that existed long before there was anyone to identify that body of water as the Atlantic Ocean, to identify the stuff in it as water, or to identify one of its chemical components as salt. Of course, in order for us to make all these identifications, we must have a language, but so what? The facts exist, utterly independent of language. Fay's argument as presented is a fallacy. It is a use-mention fallacy to suppose that the linguistic and conceptual nature of the *identification* of a fact requires that the *fact identified* be itself linguistic in nature.¹⁶ Facts are conditions that make statements true, but they are not identical with their linguistic descriptions. We invent words to state facts and to name things, but it does not follow that we invent the facts or the things.

A second argument, related to the argument from perspectivism, is the argument from conceptual relativity. Here is how it goes. All of our concepts are made by us as human beings. There is nothing inevitable about the concepts we have for describing reality. But, so the antirealist argues, the relativity of our concepts, if properly understood, shows that external realism is false because we have no access to external reality except through our concepts. Different conceptual

structures give different descriptions of reality, and these descriptions are inconsistent with each other. For example, relative to one conceptual scheme, if I am asked, "How many objects are there in this room?" I may count the various items of furniture in this room. But relative to another conceptual scheme, that does not distinguish between the elements of a set of furniture but just treats the furniture set as one entity, there will be a different answer to the question, "How many objects are there in the room?" As an answer within the first conceptual scheme, we can say that there are seven objects in the room. Within the second scheme, there is one object. So how many are there really? The antirealist says that there is no answer to that question. There is no fact of the matter except relative to a conceptual scheme, and therefore there is no real world except relative to a conceptual scheme.

What should we make of this argument? I am embarrassed to say that I think it is remarkably feeble, even though it has been advanced in different versions by some very well known philosophers. There really are seven objects in the room, as counted by one system of counting, and there really is only one object, as counted by another system of counting. But the real world doesn't care about which system of counting we use; each gives us an alternative and true description of the one world, using a different system of counting. The appearance of a problem derives entirely from the apparent inconsistency in saying there is only one object and yet there are seven objects. But once you understand the nature of the claims, there is no inconsistency whatever. They are both consistent, and indeed, both are true. There are many such examples in daily life. I weigh 160 in pounds and 72 in kilograms. So what do I weigh really? The answer is, both 160 and 72 are true depending on which system of measurement we are using. There is really no problem or inconsistency whatever.

A third argument against external realism is the argument from the history of science. This argument has its origin in

Thomas Kuhn's book *The Structure of Scientific Revolutions*, though I doubt that Kuhn himself ever accepted the argument in this form. Science, on Kuhn's account, does not proceed by the steady accumulation of knowledge; rather it proceeds by a series of revolutions: whereby one paradigm for doing science is abandoned because of its inability to solve certain puzzles and as a result of a scientific revolution is replaced by a new paradigm. What you find is not a steady accretion of knowledge about reality as it is in itself, but rather a series of different discourses, each within its own paradigm. Science does not describe an independently existing reality but is forever creating new "realities" as it goes along. As Bruno Latour and Steve Woolgar say, "Our point is that outthereness is the *consequence* of scientific work rather than its *cause*."¹⁷ As I mentioned earlier, I doubt that Kuhn would have accepted this antirealist argument, but he did think there was a sense in which Newton worked in a different world than Aristotle.

What should we make of this argument? I have to say, once again, that it does not seem to me to cast any doubt at all on even the most naive version of the default position that there is a real world existing totally independently of us and that it is the task of the natural sciences to provide us with a theoretical account of how the world works. Suppose that Kuhn is entirely correct that science proceeds by fits and starts and occasional big jolts. Suppose that revolutionary theories are not even translatable into the vocabulary of earlier theories, to the extent that the arguments between adherents of the different theories reveal only mutual incomprehension. What follows? I think nothing interesting follows about external realism. That is, the fact that scientific efforts to account for the real world are less rational and less cumulative than we had previously supposed—if it is a fact—casts no doubt at all on the presupposition that there is a real world that scientists are making genuine attempts to describe.

The fourth argument against external realism, related to the Kuhnian argument, is the argument from the underdetermination of theory by evidence. Consider the move from the idea that the earth is the center of our planetary system to the idea that the sun is the center, from the geocentric to the heliocentric theory. We did not discover that the Ptolemaic geocentric system was false and the heliocentric was true. Rather, we abandoned the first because the second was simpler and enabled us to make better predictions about eclipses, parallax, and the like. We did not discover an absolute truth; rather, we adopted a different way of talking, for essentially practical purposes. This is because the theories were both "underdetermined" by the evidence. We could have held either theory consistently with all of the available evidence, provided we were willing to make suitable adjustments in the theory. The history of such scientific "discoveries" shows that if truth is supposed to name a relation of correspondence to a mind-independent reality, then there is no such thing as truth because there is no such reality and hence no relation of correspondence.

I mention this argument and the example of the Copernican Revolution because I was brought up on it as a beginning philosophy undergraduate in the 1950s. It antedates current debates by nearly half a century. But it is still a bad argument. The shift from geocentric to heliocentric theory does not show that there is no independently existing reality; on the contrary, the whole debate is only *intelligible* to us on the assumption that there *is* such a reality. We understand the debate and its importance only if we assume that it is about real objects—the earth, the sun, the planets—and their actual interrelationships. Unless we assume there are mind-independent objects such as the earth and the sun, we do not even understand what is at stake, what is at issue in the debate about whether the former goes around the latter or the latter around the former. Indeed, the points about simplicity and better predictions are relevant only because

we think of them as ways of getting at the truth about the real world. If you think there is no real world, then you might as well say what you like for aesthetic or other reasons. Why prefer simplicity unless you prefer it for aesthetic reasons? In fact, however, we suppose that the simpler system is more likely to correspond to the facts, because we think that the incredible complexities of Ptolemaic astronomy were really ways of patching up holes and inconsistencies in that theory. The debate and its resolution are precisely arguments in favor of, not against, the existence of the real world, and science as a series of increasingly successful efforts to state the truth about that world. The subsequent development of relativity theory, with its abandonment of the view that sun and planets exist in absolute space, further illustrates this point.

What we choose, when we choose one theory over another on the basis of evidence that is consistent with both theories, is a claim about how the world really is independent of our choice of theories. Quine famously argued that his acceptance of the existence of the particles of atomic physics was a *posit* on a par, as a *posit*, with the acceptance of the existence of Homer's gods.¹⁸ Quite so, but it does not follow that it is up to us whether electrons or Zeus and Athena exist. What is up to us is whether we accept or reject the theory that *says* that they exist. The theory is true or false depending on whether they exist or not, independently of our acceptance or rejection of the theory.

Any reader familiar with the history of philosophy will be wondering when I am going to answer skepticism, for surely I cannot make these claims about the real world unless I can claim to have knowledge of the real world. The validity of such claims to knowledge would first require an answer to skeptical doubts about the very possibility of knowledge of the real world. So I turn now to what historically is the main argument against the view that there is a mind-independent reality.

Skepticism, Knowledge, and Reality

In the history of philosophy, the most common and most famous argument against the view that there is a reality existing independently of us is that such a claim makes reality unknowable. We are forced, so the argument goes, to the view that there is a world of things in themselves that is forever beyond the reach of our knowledge. But the assumption of such a reality is both pernicious and empty—pernicious because it forces us to the despair of skepticism, empty because you can't do anything with the hypothesis of an independently existing reality. According to Berkeley, if matter does exist we can never know it; if it does not, everything remains the same.¹⁹

It would take several whole books to do justice to the history of this argument, but here I will be brief. Skeptical arguments in philosophy always have the same form: you could have the best possible evidence about some domain and still be radically mistaken. You could have the best possible evidence about other people's behavior and still be mistaken about their mental states. You could have the best possible evidence about the past and still be mistaken about the future. You could have the best possible evidence about your own perceptual experiences and still be mistaken about the external world. This is so because you could be dreaming, having hallucinations, be a brain in a vat, or be deceived systematically by an evil demon. This type of skepticism (though not all of these examples) is found most famously in Descartes. More radical skeptics go the next step: not only do you *not* have *enough* evidence, but strictly speaking, you have *no evidence at all*, because the evidence you have is in one domain and the claims you are making are about another domain. You have evidence about behavior, but you are making claims about consciousness. You have evidence about the past, but your claims are about the future. You have evidence about your sensations, but your claims are about material ob-

jects. Such radical forms of skepticism are to be found in David Hume. The example we will zero in on now is about our evidence for the existence of a real world, or as it is sometimes called, "the external world." How could anyone doubt that he or she is looking at a book, sitting in a chair, seeing the rain falling on the trees outside? The first step made by the skeptical philosopher is to press the question: What is it, strictly speaking, that you perceive when you look at a tree? The answer is that you do not perceive an independently existing material object; rather, you perceive your own perception, your own conscious experience.

The commonsense view that we actually see such things as trees and houses is supposed to be easy to refute. The two most famous refutations are the argument from science and the argument from illusion. Because of the prestige of the natural sciences, the argument from science has been the more appealing in the twentieth century. The argument goes as follows:

If you consider scientifically what happens when you see a tree, here is what you find: Photons are reflected off the surface of the tree, they attack the photoreceptor cells in the retina, and cause a series of neuron firings that go through the five layers of cells in the retina, through the lateral geniculate nucleus, and back to the visual cortex; eventually this series of neuron firings causes a visual experience somewhere deep in the brain. All that we see, literally, directly, is the visual experience in our brains. This is variously called a "sense datum," a "percept," or, more recently, "a symbolic description," but the basic idea is that perceivers don't actually see the real world.²⁰

This argument seems to me fallacious. From the fact that I can give a causal account of how it comes about that I see the real world, it doesn't follow that I don't see the real world. It is, indeed, a variant of the genetic fallacy. The fact that I can give a causal account of why I believe that two plus two equals four (I was conditioned by Miss Masters, my first-

grade teacher) does not show that two plus two does not equal four. And the fact that I can give a causal account of how it comes about that I see the tree (light photons strike my retina and set up a series of neuron firings that eventually cause a visual experience) does not show that I don't see the tree. There is no inconsistency between asserting, on the one hand, "I directly perceive the tree," and asserting, on the other, "There is a sequence of physical and neurobiological events that eventually produce in me the experience I describe as 'seeing the tree.'"

The second argument is the argument from illusion. This argument takes many different forms, and I won't state all of them, but the common thread that runs through them is this: the person who thinks that we directly perceive objects and states of affairs in the world, the naive perceptual realist, cannot deal with the fact that there is no way of distinguishing the case where I really do see objects and states of affairs in the world, the so-called "veridical" case, from the case where I am having some sort of illusion, hallucination, delusion, and so on. Therefore, perceptual realism is false. The simplest version of this argument that I know of is to be found in Hume. He thought that naive perceptual realism was so easily refutable that he dismissed it in a few sentences. If you are ever tempted to think that you perceive the real world directly, just push one eyeball. If you assume you are seeing the real world, you would have to say that it doubles.²¹ That is, if the naive realists were right and I were seeing the real world, then when I see double I should be seeing two worlds. But I am obviously not seeing two worlds. There are not two tables in front of me, even though when I push my eyeball so that the two eyes are no longer focused, I have two visual experiences.

There are many variations on the argument from illusion. Many of them have been, in my view, effectively attacked by J. L. Austin in his classic work *Sense and Sensibilia*.²² I won't go through all the details now but will just content myself

with the general form of the argument and with a statement as to why it is fallacious.

The general form of the argument from illusion is this: If the naive perceptual realist were right, and there really were cases where we directly perceive objects and states of affairs in the world, then there should be a distinction in the character of the experience between cases when we are perceiving objects and states of affairs in the world as they really are, and cases when we are not. But as the two experiences are qualitatively indistinguishable, the analysis of one case should apply to the other, and since in the non-veridical case we are not seeing the real world, or not seeing it as it really is, in the so-called veridical case we must say that we are not seeing the real world, or not seeing it as it really is, either.

Now, once it is laid bare in this form, the basic structure of the argument can be seen to be fallacious. It is simply not true that in order for me to be seeing the object in front of me, there must be some internal feature of the experience itself that is sufficient to distinguish the veridical experience from a hallucination of the object. I take it that the point of the example of the hallucination is that there is nothing in the experience itself, in the actual qualitative character of the experience, that distinguishes the hallucinatory cases from the veridical cases. But why should there be? Since the visual experience is caused by a sequence of neuron firings that begin at the sensory receptors and terminate somewhere in the brain, it is at least conceivable that there should be equivalent neuron firings that produce an equivalent visual experience but without an object actually being there to be seen. If that is right, then the cases where I am actually seeing an object cannot be distinguished from the cases where I am not seeing the object solely on the basis of a single experience in the brain. But why should a single experience be all I have to go on? In the normal case, I take for granted that I am an embodied agent engaged in all sorts of encounters with the world around me. Any single experience only makes the kind of sense to me that it does because it is part of a network of

other experiences, and it goes on against a Background of taken-for-granted capacities I have for coping with the world. If that is right, then the single experience, considered in isolation by itself, is not sufficient to make the distinction between veridical perception and hallucination. Again, why should it be? That is, the basic structure of the argument from illusion rests on a false first premise: the assumption that I sometimes see real objects in the real world requires that there be a distinction in the qualitative character of my visual experiences between veridical and non-veridical perceptual experiences. The argument, then, is not sound because the first premise is false.

Once we reject the idea that all we ever perceive are our own perceptions, then we have no epistemic basis for denying external realism.

Is There Any Justification for External Realism?

I have so far been answering challenges to external realism, but can it be justified on its own? I do not believe it makes any sense to ask for a justification of the view that there is a way that things are in the world independently of our representations, because any attempt at justification presupposes what it attempts to justify. Any attempt to find out about the real world at all presupposes that there is a way that things are. That is why it is wrong to represent external realism as the view that there are material objects in space and time, or that mountains and molecules, and so on, exist. Suppose there were no mountains and molecules, and no material objects in space and time. Then those would be facts about how the world is and thus would presuppose external realism. That is, the negation of this or that claim about the real world presupposes that there is a way that things are, independently of our claims.

I have been talking as if these issues about idealism, realism, and so forth, are matters of debate and argument over

rival theories. In the history of philosophy, it certainly looks that way, but I believe that this is the wrong way to see the matter. At a much deeper level, here is what I think is in fact going on: external realism is not a theory. It is not an *opinion*. I hold that there is a world out there. It is rather the framework that is necessary for it to be even possible to hold opinions or theories about such things as planetary movements. When you debate the merits of a theory, such as the heliocentric theory of the solar system, you have to take it for granted that there is a way that things really are. Otherwise, the debate can't get started. Its very terms are unintelligible. But that assumption, that there is a way that things are, independent of our representations of how they are, is external realism. External realism is not a claim about the existence of this or that object, but rather a presupposition of the way we understand such claims. This is why the "debates" always look inconclusive. You can more or less conclusively settle the issue about Darwinian evolutionary theory, but you can't in that way settle the issue about the existence of the real world, because any such settling presupposes the existence of the real world. This does not mean that realism is an unprovable theory; rather, it means that realism is not a theory at all but the framework within which it is possible to have theories.

I do not believe that the various challenges to realism are motivated by the arguments actually presented; I believe they are motivated by something much deeper and less intellectual. As I suggested earlier, many people find it repugnant that we, with our language, our consciousness, and our creative powers, should be subject to and answerable to a dumb, stupid, inert material world. Why should we be answerable to the world? Why shouldn't we think of the "real world" as something we create, and therefore something that is answerable to us? If all of reality is a "social construction," then it is we who are in power, not the world. The deep motivation for the denial of realism is not this or that argument, but

a will to power, a desire for control, and a deep and abiding resentment. This resentment has a long history, and in the late twentieth century it has been augmented by a resentment and hatred of the natural sciences. Science, with its prestige, its apparent progress, its power and money, and its enormous capacity for harm, has become a target of hatred and resentment. This is fueled by the works of thinkers like Kuhn and Feyerabend, who seem to debunk, to demythologize, science. They are taken to have shown that science does not give us objective knowledge of an independent reality, but rather is a series of more or less irrational verbal constructs, "paradigms" within which scientists engage in "puzzle-solving," until the contradictions and inconsistencies within the paradigm lead to its abandonment and scientists rush off to embrace a new paradigm and start over. The picture, in short, of the natural sciences as giving us objective knowledge of an independently existing reality—a picture that is taken for granted in the natural sciences, as anyone with any serious training in the natural sciences can attest—is now much under attack. After saying that science does not give us objective knowledge of reality, the next step is to say that there is no such reality. There are only social constructs.

I need to reemphasize the point I made earlier: my statement that antirealism is motivated by a will to power in general and a hatred of science in particular is intended as a diagnosis, not as a refutation. If it were intended as a refutation, it would commit the genetic fallacy: supposing that explaining the causal origins of a view is sufficient to show that the view is false.

Beyond Atheism

Ultimate reality, to speak rather grandly, is the reality described by chemistry and physics. It is the reality of a world consisting of entities we find it convenient—if not entirely

accurate—to call “particles” that exist in fields of force. That view itself is not realism, but it is a claim about how, within the realist Background, the world turned out. Realism is a Background presupposition that says: there is a way that things are. Physics is a discipline that contains theories. The theories say: this is how things are. Antirealists, in challenging the Background presupposition, challenge not so much the theory but the status of the theory. Because there is no way-that-things-are, independently of us, physics cannot be telling us how they are. Physics is just one social construct among others.

But, somebody will surely say, what about God? If God exists, then surely He is the ultimate reality, and physics and all the rest are dependent on God, dependent not only for their initial creation but for their continued existence.

In earlier generations, books like this one would have had to contain either an atheistic attack on or a theistic defense of traditional religion. Or at the very least, the author would have had to declare a judicious agnosticism. Two authors who wrote in a spirit in some ways similar to mine, John Stuart Mill and Bertrand Russell, mounted polemical and eloquent attacks on traditional religion. Nowadays nobody bothers, and it is considered in slightly bad taste to even raise the question of God’s existence. Matters of religion are like matters of sexual preference: they are not to be discussed in public, and even the abstract questions are discussed only by bores.

What has happened? I think that most people would suppose there has been a decline of religious faith among the more educated sections of the population in Western Europe and North America. Perhaps that is true, but it seems to me that the religious *urges* is as strong as ever and takes all sorts of strange forms. I believe that something much more radical than a decline in religious faith has taken place. For us, the educated members of society, the world has become demystified. Or rather, to put the point more precisely, we no longer

take the mysteries we see in the world as expressions of supernatural meaning. We no longer think of odd occurrences as cases of God performing speech acts in the language of miracles. Odd occurrences are just occurrences we do not understand. The result of this demystification is that we have gone beyond atheism to a point where the issue no longer matters in the way it did to earlier generations. For us, if it should turn out that God exists, that would have to be a fact of nature like any other. To the four basic forces in the universe—gravity, electromagnetism, weak and strong nuclear forces—we would add a fifth, the divine force. Or more likely, we would see the other forces as forms of the divine force. But it would still be all physics, albeit divine physics. If the supernatural existed, it too would have to be natural.

A couple of examples illustrate the change in our point of view. When I taught as a visiting professor at the University of Venice, I used to walk to a charming Gothic church, the Church of the Madonna del Orto. The original plan had been to call the church San Cristoforo, but during its construction, a statue of the Madonna was found in the adjoining orchard, and it was assumed to have fallen out of heaven. A statue of the Madonna fallen out of heaven into the orchard of the very church grounds was miracle enough to warrant the name change to the Church of the Madonna of the Orchard. Here is the point of the story: if today a statue were found near a building site, no one would say it had fallen out of heaven. Even if the statue were found in the gardens of the Vatican, the church authorities would not claim it had fallen out of heaven. That is not a possible thought for us because, in a sense, we know too much.

Another example, also from Italy. When I taught at the University of Florence, my parish church, if I may so describe it, was San Miniato, located on a hill overlooking the city, and one of the most stunning edifices in all of Florence. Why so named? Well, it seems that San Miniato was one of the first Christian martyrs in the history of the city. He was

executed by the Roman authorities in the third century, about 250 A.D., under the Emperor Decius. He survived the assault of the lions in the arena, but his head was then cut off. After his decapitation, he got up, tucked his head under his arm, and marched out of the arena, across the river, and out of town. He climbed up the hill on the south side of the Arno, still carrying his head, until he reached the top, where he sat down. On that site the church now stands. Today's guidebooks are rather bashful about telling this story, and most do not recount it at all. The point is not that we believe it is false, but that we don't even take it seriously as a possibility.

Another recent bit of evidence of the demystification of the world was the test of the Shroud of Turin. The miraculous shroud, bearing the image of Christ taken from his crucified body, was subjected by the church authorities to radioactive tests and found to be a mere seven hundred years old. Subsequent evidence indicated an earlier date, and the exact date may still be in doubt. But, and this is the point, why do we assume the tests are more to be believed than the miracle? Why should God's miracle be answerable to carbon 14?

The fact that the world has become demystified to the point that religion no longer matters in the public way that it once did shows not so much that we are all becoming atheists but that we have moved beyond atheism to a point where the issues have a different meaning for us.

The impatient reader may well wonder when I am going to take a stand on the existence of God. Actually, I think the best remark on this question was made by Bertrand Russell at a dinner I attended as an undergraduate. Since this incident has passed into legend, and since a similar incident occurred on another occasion when I was not present, I think I should tell the reader what actually happened as I remember it.

Periodically, every two years or so, the Voltaire Society, a society of intellectually inclined undergraduates at Oxford,

held a banquet with Bertrand Russell—the official patron of the society. On the occasion in question, we all went up to London and had dinner with Russell at a restaurant. He was then in his mideighties, and had a reputation as a famous atheist. To many of us, the question seemed pressing as to what sort of prospects for immortality Russell entertained, and we put it to him: Suppose you have been wrong about the existence of God. Suppose that the whole story were true, and that you arrived at the Pearly Gates to be admitted by Saint Peter. Having denied God's existence all your life, what would you say to . . . Him? Russell answered without a moment's hesitation. "Well, I would go up to Him, and I would say, 'You didn't give us enough evidence!'"

≡ NOTES

Introduction

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Chapter 1

1. Gottlob Frege, *Philosophical and Mathematical Correspondence* (Chicago: University of Chicago Press, 1980), p. 132.

2. Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2d ed. (Chicago: University of Chicago Press, 1970), p. 135.

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4. For an example of a physicist who does not accept the paradoxical interpretations of quantum mechanics, see P. R. Wallace, *Paradox Lost: Images of the Quantum* (New York: Springer, 1996).

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8. Richard Rorty, "Does Academic Freedom Have Metaphysical Presuppositions?" *Academe* 80, no. 6 (November–December 1994): 57.
9. Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton, N.J.: Princeton University Press, 1979), p. 275.
10. Hilary Putnam, *The Many Faces of Realism* (La Salle, Ill.: Open Court, 1987), p. 1.
11. Jacques Derrida, *Of Grammatology* (Baltimore: Johns Hopkins University Press, 1976), p. 158.
12. Richard Rorty, "The Priority of Democracy to Philosophy," in Merrill Peterson and Robert Vaughn, eds., *The Virginia Statute for Religious Freedom* (pp. 257–82), (Cambridge: Cambridge University Press, 1988), p. 271.
13. Nelson Goodman, *Of Mind and Other Matters* (Cambridge: Mass: Harvard University Press, 1984), p. 36.
14. Brian Fay, *Contemporary Philosophy of Social Science* (Oxford: Blackwell, 1996), p. 72.
15. *Ibid.*, p. 73.
16. The use-mention fallacy consists in confusing features of a word when it is mentioned with features of the thing referred to by the word when it is used. If I say, "Berkeley' consists of eight letters," and, "Berkeley is a city in California," it is a fallacy to infer that there is a city in California that consists of eight letters. In the first sentence the word is mentioned, and in the second it is used to refer to a city.
17. Bruno Latour and Steve Woolgar, *Laboratory Life: The Construction of Scientific Facts*, 2d ed. (Princeton, N.J.: Princeton University Press, 1986), pp. 180–82.
18. Willard Van Orman Quine, "Two Dogmas of Empiricism," in *From a Logical Point of View* (Cambridge, Mass.: Harvard University Press, 1953), p. 44.
19. George Berkeley, *A Treatise Concerning the Principles of Human Knowledge* (Oxford: Oxford University Press, 1998).
20. Francis Crick, *The Astonishing Hypothesis* (New York: Scribner's/Maxwell Macmillan International, 1994), pp. 32–33.
21. David Hume, *A Treatise of Human Nature*, ed. L. A. Selby-Bigge (Oxford: Clarendon Press, 1888), pp. 210–11.

22. J. L. Austin, *Sense and Sensibilia* (Oxford: Oxford University Press, 1962).

Chapter 2

1. Thomas Nagel, "What It Is Like to Be a Bat," in *Mortal Questions* (Cambridge: Cambridge University Press, 1979), pp. 165–80.
2. Daniel Dennett, *Consciousness Explained* (Boston: Little, Brown, 1991).
3. Jean Piaget, *The Child's Conception of Physical Causality* (New York: Harcourt, Brace & Co., 1930).

Chapter 3

1. Michael Gazzaniga, *The Social Brain* (New York: Basic Books, 1985).
2. Daniel Schacter, *Searching for Memory* (New York: Basic Books, 1996).

Chapter 4

1. Jerry Fodor, *Psychosemantics: The Problem of Meaning in the Philosophy of Mind* (Cambridge, Mass.: MIT Press, 1987), p. 97.
2. Daniel Dennett, *Brainstorms* (Vermont: Bradford Books, 1978), pp. 122–24.
3. Fodor, *Psychosemantics*, pp. 97–127.
4. Perhaps the most extreme version of this tendency is to be found in Daniel Dennett's, *The Intentional Stance* (Cambridge, Mass.: MIT Press, 1987).
5. John L. Austin, "How to Talk: Some Simple Ways," in *Philosophical Papers*, edited by James O. Urmson and Geoffrey Warnock (Oxford: Clarendon Press, 1979).
6. G. E. M. Anscombe, *Intention* (Oxford: Blackwell, 1959).
7. The idea of causal self-referentiality is an old one and goes back at least to Kant. As far as I know, the term was first