

THIRTEENTH EDITION

Reason & RESPONSIBILITY

Readings in Some Basic Problems of Philosophy

JOEL FEINBERG

RUSS SHAFER-LANDAU

T H I R T E E N T H E D I T I O N

Readings in Some Basic Problems of Philosophy

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JOEL FEINBERG (1926-2004) was a brilliant philosopher, certainly one of the most important social and political philosophers of the last half century. He was also a very kind, humble man. And he was an extremely conscientious teacher. The great care and preparation that he devoted to his teaching is evident here, in the plan and format of Reason and Responsibility. Joel developed the first edition of this textbook about forty years ago, dissatisfied with existing options, and intent on providing coverage of those areas of philosophy that struck him as deeply important and deserving of every student's careful study.

Most of you reading this will know Joel Feinberg only as the editor of a book you've been

assigned to read. If you have a chance, you ought to seek out one of the many exciting works that Joel penned during his prolific career. He was a philosophical writer of rare talent. He wrote about things that matter, and did so in a way that everyone could understand. He was clear, he was elegant, always ready with the telling example, the well-chosen reference to literature or history, dropped into place with a light touch. Open any one of his many books and read at random-you can't help but be impressed by the humanism, the clarity, the originality and, certainly, the wisdom of the views that receive expression there.

Joel was also a man of great common sense and discernment. One of the most desirable things in life is to have a person of integrity and genuinely sound judgment to rely on for advice, companionship, and, if one is especially fortunate, for friendship. I was lucky enough to study with Joel for five years, to write a dissertation under his direction, and later to work with him as a collaborator on this book over the past decade. His suggestions during our collaboration, both about substantive matters of content and about the more mundane, practical matters of the publishing world, epitomized his practical wisdom. He was a man whose judgment you could trust.

Joel was curious, interested in the whole range of human experience, attentive to relevant detail, appreciative of salient distinctions, a lover of taxonomies and, at the same time, able to resist the pressure that such taxonomies impose-pressure to falsify the phenomena and straitjacket it into categories that generate misunderstanding. It is a very rare talent, to be so analytically minded and yet so broad in one's outlook, to appreciate system and yet to be sensitive to the fine detail that must constrain its development. Joel possessed such talent, to a degree that was almost unrivalled. There were very few in his league.

Joel died after a long struggle with Parkinson's disease and its complications. He left us a great and valuable legacy, both personal and professional. It was a true honor to have known him, to have learned from him, and to have counted him a friend.



PREFACE

THE CONVICTION UNDERLYING this volume is that introducing the college student to philosophy by means of a few representative problems examined in great detail is far preferable to offering a "little bit of everything," with each "branch" of philosophy, each major "ism," and each major historical period represented with scrupulous impartiality, even though the articles may have little relevance to one another. Accordingly, articles have been selected from both classical and contemporary sources on such topics as religion, mind, personal identity, death, freedom, responsibility, duty, justice, and selfishness. The problems that concern philosophers under these headings are not mere idle riddles, but rather questions of vital interest to any reflective person. Each set of problems is plumbed in considerable depth in essays expressing different, often opposing, views. The hope is that exposure to this argumentative

give-and-take will encourage students to take part in the process themselves, and through this practice to develop their powers of philosophical reasoning.

This thirteenth edition of *Reason and Responsibility* has been strengthened by the addition of thirteen new selections. The policy of securing the very best available English translations for foreign works has been retained. We have tried to strike a good balance between classic works and relatively new material on these subjects of enduring philosophical interest.

I encourage readers to have a look at our website, located at www.thomsonedu.com/philosophy/feinberg. Once there, you will see a substantial introduction, study questions, and relevant philosophical internet links associated with each of the 77 selections included in this latest edition. Research assistants Alan Rubel and David Killoren have prepared these materials under my supervision. I would like to thank Wadsworth for absorbing the costs associated with this project. I am proud of the site and think that it will be a terrific aid to student learning.

The following major parts of this work have been updated and expanded. Part 1, "Reason and Religious Belief," reinstates, by popular demand, J. L. Mackie's now classic argument from evil, one that seeks to show that the presence of avoidable suffering demonstrates that a perfect God does not exist. Also on offer is a reply by philosopher George Schlesinger, one that seeks to show that the existence of evil is no threat at all to the existence of God.

Part 2 ("Human Knowledge: Its Grounds and Limits") is strengthened by a new defense of radical skepticism, by Peter Unger, and a generous selection from Bertrand Russell's *Problems of Philosophy*, in which Russell presents and analyzes the worries surrounding skepticism in his characteristically instructive and lucid way.

Part 3 ("Mind and Its Place in Nature") now includes a piece by Brie Gertler, written especially for this edition of *Reason and Responsibility*. Gertler defends mind-body dualism, and does so with verve. This view, once the default position in this area of philosophy, has become the subject of widespread doubt. Gertler does an excellent job of resuscitating it in the face of criticisms, and presenting challenges of her own to the views of her opponents. Also new to this part is a pair of readings on animal minds, one by John Searle, defending their existence, and the other by Peter Carruthers, who denies that animals are conscious, and rejects the claim that animals have feelings (of pain, pleasure, etc.) that give them any claim to our moral attention.

Part 4 ("Determinism, Free Will and Responsibility") includes three new selections. Derk Pereboom adds his defense of "hard incompatibilism," a view that is agnostic about the truth of determinism, but strongly affirms the view that we lack freedom, and that freedom and determinism are incompatible. John Martin Fischer is enlisted in support of compatibilism, the view that we can have our cake and eat it, too: freedom can, after all, peacefully co-exist with determinism. There is also a new selection on freedom and moral responsibility by the late philosopher James Rachels, who carefully and engagingly surveys the territory in this area, and comes up with some surprising results.

This volume currently contains seven major classics: two that are complete (Descartes' *Meditations* and Plato's *Crito*); one that is presented in virtual totality (Hume's *Dialogues*); and four that appear in very substantial sections (Berkeley's *Principles*, Hume's *Inquiry*, Mill's *Utilitarianism*, and Kant's *Groundwork*). In addition, we have included shorter selections from sixteen more classic texts: those authored by Anselm, Gaunilo, Aquinas, Clarke, Paley, Pascal, William James, G. E. Moore, Locke, Reid, Hume, Plato, Nietzsche, Aristotle and Hobbes. This book can be used to teach an introductory course based solidly on a reading of these classics; more recent articles can be seen as a kind of dividend. The book contains many articles by contemporary philosophers, including eight that are addressed specifically to beginning students

and that were written expressly for this book by William Rowe, Wesley Salmon, John Perry, Robert Kane, Brie Gertler, Philip Quinn, and both editors.

There is no single "necessary and natural" order or sequence in which to read these materials. The book begins with the philosophy of religion because many beginners are familiar with its problems. But it is just as "natural" to begin with Part 2, because the question of our knowledge of God presupposes the question of the "grounds and limits of human knowledge" generally. Similarly, there is no reason why one could not begin with the mind-body problem (Part 3) or the problem of determinism and free will (Part 4). Indeed, many professors have said that they prefer to begin with ethics (Part 5) and work their way toward the front of the book.

I am grateful for advice on how to improve the format and content of subsequent editions of Reason and Responsibility. Those with such advice are very welcome to email me at shaferlandau@wisc.edu with their suggestions.

I'd like to thank Andrew Johnson (SMU), Kihyeon Kim (Seoul National University), Jonny Anomaly (Ithaca College), and my colleagues Eric Margolis and Claudia Card for their very helpful advice on materials for this new edition. And a special note of thanks to my research assistant, David Killoren, who offered invaluable help and advice over the course of the many months that this new edition was being prepared.

PART ONE

Reason and Religious Belief

W

HAT CAN REASON TELL US about such vast topics as the origin of the universe and the existence and nature of God? Most of us have beliefs about these matters-beliefs derived from religious authorities or based on faith; but is there any way to demonstrate that these beliefs are reasonable or unreasonable? This question provides the unifying theme for the readings in Part 1.

Traditional arguments for the existence of God are often divided into two groups: those whose premises are justified a posteriori (based on experience), and those whose premises are known a priori (independently of experience). In fact, however, only one mode of argument has ever purported to be wholly independent of experience, namely, the ontological argument, invented by St. Anselm in the eleventh century and defended in one form or another by

Descartes, Spinoza, and Leibniz in the seventeenth century. (For Descartes' version of the argument, see his fifth Meditation.) According to this argument, the very concept of God (or definition of the word God) entails that God must exist. If the argument is correct, anyone who has an idea of God—even if that person has no knowledge whatever of the kind derived from sense experience has conclusive rational grounds for believing that God exists. The ontological argument still has defenders among philosophers of religion today, but among those who reject it, there is little agreement over precisely what is wrong with the argument. One classic and one recent discussion of the argument are included here. The brief but famous reply of Gaunilo, a monk who was a contemporary of Anselm's, appears here, and is complemented by an article that reflects some current thinking regarding the famous argument. William L. Rowe's essay sets forth Anselm's argument clearly, step-by-step (including steps that are only implicit in Anselm's own formulation), summarizes the three most important objections to the argument, and then presents his own criticism. Rowe concludes that the ontological argument is defective but that it is nevertheless a "work of genius," which, despite its apparent simplicity, raises philosophical questions about the nature of existence that are subtle and fascinating in their own right.

Other arguments for God's existence are often called *a priori*, but these always contain at least one premise that asserts some simple experiential fact. Factual premises summarizing some facet of our experience are found in the various versions of the cosmological in this section by the selections from St. Thomas Aquinas and Samuel Clarke. For the first three of his "Five Ways," Aquinas begins each argument by citing a familiar fact of experience: Some things are in motion; there are causes and effects; things are generated and corrupted. He then tries to show that this fact can be explained only by the existence of God, because alternative explanations lead to logical absurdities. In his second article in this section, Rowe examines the cosmological argument in the form given it by Samuel Clarke and other seventeenth- and eighteenth-century philosophers. Put simply, the argument goes as follows:

1. Every being (that exists or ever did exist) is either a dependent being or self-existent being.
2. Not every being can be a dependent being.
3. Therefore, there exists a self-existent being.

The argument clearly is valid; that is, if its premises are true, then its conclusion is true. But the premises, especially the second, are highly controversial. Rowe reviews the dialectic of the debate, pro and con, over the truth of the second premise, before cautiously concluding that the premise has not yet been conclusively shown to be true.

Both the ontological and the cosmological arguments are deductive in form; that is, they purport to demonstrate that if their premises are true, then their conclusions must necessarily be true. It is logically impossible for a valid deductive argument to have both true premises and false conclusion. The teleological argument (more commonly called "the argument from design") for God's existence is more modest. It argues not that its conclusion follows necessarily from its premises, but only that its premises establish a probability that the conclusion is true. It is therefore what logicians call an inductive argument. The famous argument from design, which is given classic formulations in William Paley's *Natural Theology* (1802), and by Cleanthes, a character in David Hume's *Dialogues Concerning Natural Religion* (1779), has the inductive form. More precisely, it is an argument by analogy, with the following form:

1. a, b, c, and d all have properties P and Q.
2. a, b, and c all have property R as well.

3. Therefore, d has property R too (probably).

The closer the similarity between d and a, b, and c, the more probable is the conclusion. Cleanthes' argument can be rendered as follows:

1. Boats, houses, watches, and the whole experienced world have such properties as "mutual adjustment of parts to whole" and "curious adapting of means to ends."

2. Boats, houses, and watches have the further property of having been produced by design.

3. Therefore, it is probable that the universe also has this further property, that it too was produced by design.

The conclusion of this argument, that a designer of the world exists, has the same logical role as a scientific hypothesis designed to explain the facts of experience, and must be accepted or rejected according to whether it meets the criteria of adequacy by which hypotheses are appraised in science and in everyday life.

In Hume's Dialogues, the case against the argument from design is stated with great force and ingenuity by Philo, probably speaking for Hume himself. The analogies cited by the argument, he claims, are weak, partly because we know only one small part of the universe and cannot with confidence infer from it the nature of the whole. Moreover, he argues, there are other equally plausible ways of accounting for the observed order in the world. One of these alternative explanations, called "The Epicurean Hypothesis" by Philo in Part 7 of the Dialogues, bears striking resemblance to the Darwinian theory that biological adaptations are the result of chance variations and the survival of the fittest.

After canvassing some classic arguments for God's existence, and some replies, we come to what is perhaps the strongest of the arguments of the other side, namely, the problem of evil. Parts X and XI of Hume's Dialogues contain one of the most famous discussions of this problem, so central to religious belief. Here Philo concedes that if the existence of God has already been established by some a priori argument, then perhaps one can account for the appearance of evil in the world. But, he goes on to argue, one cannot infer the existence of an all-good and all-powerful being from the appearance of evil; that is, the former can hardly be an explanation of the latter.

In the subsection devoted entirely to the problem of evil, the great Russian novelist Fyodor Dostoevsky dramatically sets the stage for the philosophical discussion that follows by showing how the problem can arise in human experience. Dostoevsky's excerpt (from his novel, *The Brothers Karamazov*) is complemented by two sets of contemporary discussions of this problem.

The first pair of readings is focused on the so-called logical problem of evil. John Mackie's now-classic critique of theism is perhaps the best-known presentation of this problem. Mackie claims that the idea of an all-powerful, all-knowing and all-good God is logically incoherent, given the existence of evil in our world. Logically speaking, claims Mackie, a perfect God is one who is (among other things) able and willing to eradicate evil. Since evil exists, God either does not exist, or does, but is not perfect. In short, the very idea of an omnipotent, omniscient and perfectly good God logically requires that any such being eliminate evil. So it is logically incoherent to suppose that a perfect God can co-exist with evil.

George Schlesinger rejects this line of thought, arguing that the existence of evil poses no threat at all to the existence of a perfect God. True, says Schlesinger, God cannot create the

greatest possible happiness. But this does not signal any limitation on His part, because the greatest possible happiness is like the greatest possible integer—a logically incoherent notion. Asking that God make us infinitely happy is demanding what is logically impossible, and, as almost everyone agrees, no one (not even God) can be asked to do what is logically impossible.

Richard Swinburne next offers his theodicy—his effort to demonstrate the justice of God in the face of the world's ills. He approaches the problem from the Christian standpoint, but he does not underestimate the difficulty for Christian belief posed by the undeniable fact of human suffering. Moral evil (wickedness), according to a predominant strain of Christian teaching, is a necessary concomitant of human free will, indeed the price we pay for freedom; and it is logically impossible, in this line of thought, for God to have created perfectly free creatures who always behave in a perfectly good way. God is a just and loving God, for He cared enough about us to endow us with something of very great value—free will. Being free, we sometimes make mistakes. The misery in this world is properly charged to our misdeeds, rather than God's culpability. A world with free will, and the suffering it sometimes engenders, is a better world than one in which human beings are mere automata.

Numerous philosophers, on both sides of the issue, agree that the coherence of the crucial description—"created so as always to freely choose what is right"—is at the root of the problem of evil. It may be useful to the student who is especially interested in the problem of evil to read the materials on free will in Part 4.

B. C. Johnson takes direct aim at Swinburne's kind of theodicy, finding no contradiction in the thought of beings perfectly free and perfectly virtuous. In a nutshell, Johnson's argument is that God could have created a world inhabited by such people. That world would have been far better than ours. Therefore if God were perfect, He'd have created such a world. He didn't. Therefore the perfect God of classical monotheism doesn't exist.

Some of Johnson's many critical arguments echo Mackie's skepticism, and seek to show that it is logically impossible for evil and a perfect God to co-exist. But Johnson also develops a variety of evidential arguments from evil. These do not assert that the idea of a perfect God is logically incoherent. There could be such a being. But, given the vast evidence we have of avoidable suffering, the odds are very good that God does not exist. This is thus an inductive argument; it seeks to establish that the probability of atheism is very high, given our evidence. On this skeptical view, God might yet exist, though our best evidence says that He doesn't.

What if it should turn out (as many philosophers now believe) that all traditional arguments for the existence of God are defective, or at least inconclusive? Would it follow that religious belief is unreasonable? Not necessarily. Some believers have claimed that the grounds of their belief have nothing to do with argument, but rather derive from a direct experience of deity (a "mystic experience"). These believers cannot prove that God exists, but they cannot prove that they themselves exist either. In both cases, they claim to know directly, by immediate experience, that something exists, and further proof is unnecessary.

Although they have nothing to do with argument, mystical experiences might nevertheless be considered a kind of "evidence" for their attendant beliefs. The question posed by the final subsection of this chapter, however, is whether beliefs based on no evidence at all can nonetheless be, in some circumstances, reasonable. In his selection here, Kelly James Clark defends an affirmative answer to this question. He argues that we already accept the credibility of certain non-religious beliefs on the basis of no evidence at all, and are quite reasonable to do so. If we criticize the religious believer for lack of evidence, then, to be consistent, we must abandon many eminently reasonable beliefs. Since, in the end, it would not be rational to

abandon them, it wouldn't be rational for the theist to abandon her religious beliefs, either.

W. K. Clifford argues emphatically for the negative and affirms his own rationalistic "ethic of belief," namely, that "it is wrong always, everywhere, and for anyone to believe anything upon insufficient evidence." The seventeenth-century mathematicianphilosopher Blaise Pascal had argued for the reasonableness of a kind of "bet" on God's existence even in the absence of all evidence, urging that it costs little to believe in God and act accordingly even if God in fact does not exist, whereas there is an infinite amount to lose by not believing if in fact God exists. Many Christian fideists (those whose belief is based on faith rather than argument), including William James, have found the unveiled appeal to self-interest in Pascal's "wager" to be a kind of embarrassment. James, in his famous "The Will to Believe," disowns Pascal but goes on to explain in his own way why belief in the absence of evidence can in some circumstances be reasonable. (Careful readers might well ask themselves, however, whether James's strict conditions for the proper exercise of "the will to believe" are in fact ever satisfied.) If there is one thing that James, the nineteenthcentury Protestant, has in common with Pascal, the seventeenth-century Catholic, it is the conviction that the primary function of religious belief is not simply to allay philosophical curiosity about things. Both writers are aware that, to many, religious belief is a vital practical need, and each in his own way urges this to be taken into account when the reasonableness of belief is assessed.

The last of our offerings in the philosophy of religion sounds a decidedly skeptical note. Central to many religions is the idea of literally miraculous divine intervention. Many think that religious faith can receive rational support from warranted belief in miracles. Simon Blackburn explains what miracles are and must be if they are to play this central role. He sides with Hume and others in claiming that we never have better evidence for thinking that what we have experienced is a genuine miracle, as opposed to some phenomenon subject to scientific or psychological explanation. To the extent that our religious beliefs are grounded in the view that we (or others we know) have experienced miracles, our religious beliefs are unjustified. The world we live in, hints Blackburn, is a wholly material world, governed solely by the laws of nature.

This sort of skepticism about miracles, and more generally about the sorts of things that escape scientific confirmation, has implications for many other areas of philosophy. Students interested in exploring the consequences of such a "naturalistic" or "materialistic" world view can find articles that address these implications in every one of the remaining parts of this book. Those so minded are encouraged to have a look at works in Part 2 ("The Methods of Science"), Part 3 ("The Mind-Body Problem"), Part 4 ("Hard Determinism"), and Part 5 ("Challenges to Morality").

THE EXISTENCE AND NATURE OF GOD

The Five Ways, from Summa Theologica

SAINT THOMAS AQUINAS

Saint Thomas Aquinas (1225-1274) is the philosopher whose teachings are most favored by the Roman Catholic Church.

From Summa Theologica by St. Thomas Aquinas; translated by the Fathers of the English Dominican Province. (Westminster, MD: Christian Classics, 1981, '1948), vol. I, pp. 13-14 (pt. I, q. II, art. III).

There are five ways in which one can prove that there is a God.

The first and most obvious way is based on change. Some things in the world are certainly in process of change: this we plainly see. Now anything in process of change is being changed by something else. This is so because it is characteristic of things in process of change that they do not yet have the perfection towards which they move, though able to have it; whereas it is characteristic of something causing change to have that perfection already. For to cause change is to bring into being what was previously only able to be, and this can only be done by something that already is: thus fire, which is actually hot, causes wood, which is able to be hot, to become actually hot, and in this way causes change in the wood. Now the same thing cannot at the same time be both actually x and potentially x, though it can be actually x and potentially y: the actually hot cannot at the same time be potentially hot, though it can be potentially cold. Consequently, a thing in process of change cannot itself cause that same change;

it cannot change itself. Of necessity therefore anything in process of change is being changed by something else. Moreover, this something else, if in process of change, is itself being changed by yet another thing; and this last by another. Now we must stop somewhere, otherwise there will be no first cause of the change, and, as a result, no subsequent causes. For it is only when acted upon by the first cause that the intermediate causes will produce the change: if the hand does not move the stick, the stick will not move anything else. Hence one is bound to arrive at some first cause of change not itself being changed by anything, and this is what everybody understands by God.

The second way is based on the nature of causation. In the observable world causes are found to be ordered in series; we never observe, nor ever could, something causing itself, for this would mean it preceded itself, and this is not possible. Such a series of causes must however stop somewhere; for in it an earlier member causes an intermediate and the intermediate a last (whether the intermediate be one or many). Now if you eliminate a cause you also eliminate its effects, so that you cannot have a last cause, nor an intermediate one, unless you have a first. Given therefore no stop in the series of causes, and hence no first cause, there would be no intermediate causes either, and no last effect, and this would be an open mistake. One is therefore forced to suppose some first cause, to which everyone gives the name 'God'.

The third way is based on what need not be and on what must be, and runs as follows. Some of the things we come across can be but need not be, for we find them springing up and dying away, thus sometimes in being and sometimes not. Now everything cannot be like this, for a thing that need not be, once was not; and if everything need not be, once upon a time there was nothing. But if that were true there would be nothing even now, because something that does not exist can only be brought into being by something already existing. So that if nothing was in being nothing could be brought into being, and nothing would be in being now, which contradicts observation. Not everything therefore is the sort of thing that need not be; there has got to be something that must be. Now a thing that must be, may or may not owe this necessity to something else. But just as we must stop somewhere in a series of causes, so also in the series of things which must be and owe this to other things. One is forced therefore to suppose something which must be, and owes this to no other thing than itself; indeed it itself is the cause that other things must be.

The fourth way is based on the gradation observed in things. Some things are found to be more good, more true, more noble, and so on, and other things less. But such comparative terms describe varying degrees of approximation to a superlative; for example, things are hotter and hotter the nearer they approach what is hottest. Something therefore is the truest and best and most noble of things, and hence the most fully in being; for Aristotle says that the truest things are the things most fully in being. Now when many things possess some property in common, the one most fully possessing it causes it in the others: fire, to use Aristotle's example, the hottest of all things, causes all other things to be hot. There is something therefore which causes in all other things their being, their goodness, and whatever other perfection they have. And this we call 'God'.

The fifth way is based on the guidedness of nature. An orderedness of actions to an end is observed in all bodies obeying natural laws, even when they lack awareness. For their behaviour hardly ever varies, and will practically always turn out well; which shows that they truly tend to a goal, and do not merely hit it by accident. Nothing however that lacks awareness tends to a goal, except under the direction of someone with awareness and with understanding; the arrow, for example, requires an archer. Everything in nature, therefore, is directed to its goal by

someone with understanding, and this we call 'God'.

A Modern Formulation

of the Cosmological Argument

SAMUEL CLARKE

Samuel Clarke (1675-1729), English theologian and philosopher, was one of the first to be greatly influenced by Isaac Newton's physics.

From Samuel Clarke, *A Demonstration of the Being and Attributes of God* (1705), Part II.

There has existed from eternity some one unchangeable and independent being. For since something must needs have been from eternity; as hath been already proved, and is granted on all hands: either there has always existed one unchangeable and independent Being, from which all other beings that are or ever were in the universe, have received their original; or else there has been an infinite succession of changeable and dependent beings, produced one from another in an endless progression, without any original cause at all: which latter supposition is so very absurd, that tho' all atheism must in its account of most things (as shall be shown hereafter) terminate in it, yet I think very few atheists ever were so weak as openly and directly to defend it. For it is plainly impossible and contradictory to itself. I shall not argue against it from the supposed impossibility of infinite succession, barely and absolutely considered in itself; for a reason which shall be mentioned hereafter: but, if we consider such an infinite progression, as one entire endless series of dependent beings; 'tis plain this whole series of beings can have no cause from without, of its existence; because in it are supposed to be included all things that are or ever were in the universe: and 'tis plain it can have no reason within itself, of its existence; because no one being in this infinite succession is supposed to

be self-existent or necessary (which is the only ground or reason of existence of any thing, that can be imagined within the thing itself, as will presently more fully appear), but every one dependent on the foregoing; and where no part is necessary, 'tis manifest the whole cannot be necessary; absolute necessity of existence, not being an outward, relative, and accidental determination; but an inward and essential property of the nature of the thing which so exists. An infinite succession therefore of merely dependent beings, without any original independent cause; is a series of beings, that has neither necessity nor cause, nor any reason at all of its existence, neither within itself nor from without: that is, 'tis an express contradiction and impossibility; 'tis a supposing something to be caused, (because it's granted in every one of its stages of succession, not to be necessary and from itself); and yet that in the whole it is caused absolutely by nothing: Which every man knows is a contradiction to be done in time; and because duration in this case makes no difference, 'tis equally a contradiction to suppose it done from eternity: And consequently there must on the contrary, of necessity have existed from eternity, some one immutable and independent Being: Which, what it is, remains in the next place to be inquired.

The Argument from Design

WILLIAM PALEY

William Paley (1743-1805) was an English philosopher of religion and ethics.

From Natural Theology (1800).

CHAPTER ONE: STATE OF THE ARGUMENT

In crossing a heath, suppose I pitched my foot against a stone and were asked how the stone came to be there, I might possibly answer that for anything I knew to the contrary it had lain there forever; nor would it, perhaps, be very easy to show the absurdity of this answer. But suppose I had found a watch upon the ground, and it should be inquired how the watch happened to be in that place. I should hardly think of the answer which I had before given, that for anything I knew the watch might have always been there. Yet why should not this answer serve for the watch as well as for the stone? Why is it not as admissible in the second case as in the first? For this reason, and for no other, namely, that when we come to inspect the watch, we perceive-what we could not discover in the stone-that its several parts are framed and put together for a purpose, e.g., that they are so formed and adjusted as to produce motion, and that motion so regulated as to point out the hour of the day; that if the different parts had been differently shaped from what they are, of a different size from what they are, or placed after any other manner or in any other order than that in which they are placed, either no motion at all would have been carried on in the machine, or none which would have answered the use that is now served by it. To reckon up a few of the plainest of these parts and of their offices, all tending to one result; we see a cylindrical box containing a coiled elastic spring, which, by its endeavor to relax itself, turns round the box. We next observe a flexible chain-artificially wrought for the sake of flexure-communicating the action of the spring from the box to the fusee. We then find a series of wheels, the teeth of which catch in and apply to each other, conducting the motion from the fusee to the balance and from the balance to the pointer, and at the same time, by the size and shape of those wheels, so regulating that motion as to terminate in causing an index, by an equable and measured progression, to pass over a given space in a given time. We take notice that the wheels are made of brass, in order to keep them from rust; the springs of steel, no other metal being so elastic; that over the face of the watch there is placed a glass, a material employed in no other part of the work, but in the room of which, if there had been any other than a transparent substance, the hour could not be seen without opening the case. This mechanism being observed-it requires indeed an examination of the instrument, and perhaps some previous knowledge of the subject, to perceive and understand it; but being once, as we have said, observed and understood-the inference we think is inevitable, that the watch must have had a maker-that there must have existed, at some time and at some place or other, an artificer or artificers who formed it for the purpose which we find it actually to answer, who comprehended its construction and designed its use.

I. Nor would it, I apprehend, weaken the conclusion, that we had never seen a watch made that we had never known an artist capable of making one-that we were altogether incapable of executing such a piece of workmanship ourselves, or of understanding in what manner it was performed; all this being no more than what is true of some exquisite remains of ancient art, of some lost arts, and, to the generality of mankind, of the more curious productions of modern manufacture. Does one man in a million know how oval frames are turned? Ignorance of this kind exalts our opinion of the unseen and unknown artist's skill, if he be unseen and unknown, but raises no doubt in our minds of the existence and agency of such an artist, at some former time and in some place or other. Nor can I perceive that it varies at all the inference, whether the question arise concerning a human agent or concerning an agent of a different species, or an agent possessing in some respects a different nature.

II. Neither, secondly, would it invalidate our conclusion, that the watch sometimes went wrong or that it seldom went exactly right. The purpose of the machinery, the design, and the designer might be evident, and in the case supposed, would be evident, in whatever way we accounted for the irregularity of the movement, or whether we could account for it or not. It is not necessary that a machine be perfect in order to show with what design it was made: still less necessary, where the only question is whether it were made with any design at all.

III. Nor, thirdly, would it bring any uncertainty into the argument, if there were a few parts of the watch, concerning which we could not discover or had not yet discovered in what manner they conduced to the general effect; or even some parts, concerning which we could not ascertain whether they conduced to that effect in any manner whatever. For, as to the first branch of the case, if by the loss, or disorder, or decay of the parts in question, the movement of the watch were found in fact to be stopped, or disturbed, or retarded, no doubt would remain in our minds as to the utility or intention of these parts, although we should be unable to investigate the manner according to which, or the connection by which, the ultimate effect depended upon their action or assistance; and the more complex is the machine, the more likely is this obscurity to arise. Then, as to the second thing supposed, namely, that there were parts which might be spared without prejudice to the movement of the watch, and that we had proved this by experiment, these superfluous parts, even if we were completely assured that they were such, would not vacate the reasoning which we had instituted concerning other parts. The indication of contrivance remained, with respect to them, nearly as it was before.

IV. Nor, fourthly, would any man in his senses think the existence of the watch with its various machinery accounted for, by being told that it was one out of possible combinations of material forms; that whatever he had found in the place where he found the watch, must have contained some internal configuration or other; and that this configuration might be the structure now exhibited, namely, of the works of a watch, as well as a different structure.

V. Nor, fifthly, would it yield his inquiry more satisfaction, to be answered that there existed in things a principle of order, which had disposed the parts of the watch into their present form and situation. He never knew a watch made by the principle of order; nor can he even form to himself an idea of what is meant by a principle of order distinct from the intelligence of the watchmaker.

VI. Sixthly, he would be surprised to hear that the mechanism of the watch was no proof of contrivance, only a motive to induce the mind to think so:

VII. And not less surprised to be informed that the watch in his hand was nothing more than the result of the laws of metallic nature. It is a perversion of language to assign any law as the efficient, operative cause of any thing. A law presupposes an agent, for it is only the mode according to which an agent proceeds; it implies a power, for it is the order according to which that power acts. Without this agent, without this power, which are both distinct from itself, the law does nothing, is nothing. The expression, "the law of metallic nature," may sound strange and harsh to a philosophic ear; but it seems quite as justifiable as some others which are more familiar to him, such as "the law of vegetable

nature," "the law of animal nature," or, indeed, as "the law of nature" in general, when assigned as the cause of phenomena, in exclusion of agency and power, or when it is substituted into the place of these.

VIII. Neither, lastly, would our observer be driven out of his conclusion or from his confidence in its truth by being told that he knew nothing at all about the matter. He knows enough for his argument; he knows the utility of the end; he knows the subserviency and

adaptation of the means to the end. These points being known, his ignorance of other points, his doubts concerning other points affect not the certainty of his reasoning. The consciousness of knowing little need not beget a distrust of that which he does know.

CHAPTER TWO: STATE OF THE ARGUMENT CONTINUED

Suppose, in the next place, that the person who found the watch should after some time discover that, in addition to all the properties which he had hitherto observed in it, it possessed the unexpected property of producing in the course of its movement another watch like itself-the thing is conceivable; that it contained within it a mechanism, a system of parts-a mold, for instance, or a complex adjustment of lathes, files, and other tools-evidently and separately calculated for this purpose; let us inquire what effect ought such a discovery to have upon his former conclusion.

I. The first effect would be to increase his admiration of the contrivance, and his conviction of the consummate skill of the contriver. Whether he regarded the object of the contrivance, the distinct apparatus, the intricate, yet in many parts intelligible mechanism by which it was carried on, he would perceive in this new observation nothing but an additional reason for doing what he had already done-for referring the construction of the watch to design and to supreme art. If that construction without this property, or, which is the same thing, before this property had been noticed, proved intention and art to have been employed about it, still more strong would the proof appear when he came to the knowledge of this further property, the crown and perfection of all the rest.

II. He would reflect, that though the watch before him were, in some sense, the maker of the watch, which, was fabricated in the course of its movements, yet it was in a very different sense from that in which a carpenter, for instance, is the maker of a chair-the author of its contrivance, the cause of the relation of its parts to their use. With respect to these, the first watch was no cause at all to the second; in no such sense as this was it the author of the constitution and order, either of the parts which the new watch contained, or of the parts by the aid and instrumentality of which it was produced. We might possibly say, but with great latitude of expression, that a stream of water ground corn; but no latitude of expression would allow us to say, no stretch of conjecture could lead us to think that the stream of water built the mill, though it were too ancient for us to know who the builder was. What the stream of water does in the affair is neither more nor less than this: by the application of an unintelligent impulse to a mechanism previously arranged, arranged independently of it and arranged by intelligence, an effect is produced, namely, the corn is ground. But the effect results from the arrangement. The force of the stream cannot be said to be the cause or author of the effect, still less of the arrangement. Understanding and plan in the formation of the mill were not the less necessary for any share which the water has in grinding the corn; yet is this share the same as that which the watch would have contributed to the production of the new watch, upon the supposition assumed in the last section. Therefore,

III. Though it be now no longer probable that the individual watch which our observer had found was made immediately by the hand of an artificer, yet does not this alteration in anyway affect the inference that an artificer had been originally employed and concerned in the production. The argument from design remains as it was. Marks of design and contrivance are no more accounted for now than they were before. In the same thing, we may ask for the cause of different properties. We may ask for the cause of the color of a body, of its hardness, of its heat; and these

causes may be all different. We are now asking for the cause of that subserviency to a

use, that relation to an end, which we have remarked in the watch before us. No answer is given to this question by telling us that a preceding watch produced it. There cannot be design without a designer; contrivance without a contriver; order without choice; arrangement without anything capable of arranging; subserviency and relation to a purpose without that which could intend a purpose; means suitable to an end, and executing their office in accomplishing that end, without the end ever having been contemplated or the means accommodated to it. Arrangement, disposition of parts, subserviency of means to an end, relation of instruments to a use imply the presence of intelligence and mind. No one, therefore, can rationally believe that the insensible, inanimate watch, from which the watch before us issued, was the proper cause of the mechanism we so much admire in it-could be truly said to have constructed the instrument, disposed its parts, assigned their office, determined their order, action, and mutual dependency, combined their several motions into one result, and that also a result connected with the utilities of other beings. All these properties, therefore, are as much unaccounted for as they were before.

IV. Nor is anything gained by running the difficulty farther back, that is, by supposing the watch before us to have been produced from another watch, that from a former, and so on indefinitely. Our going back ever so far brings us no nearer to the least degree of satisfaction upon the subject. Contrivance is still unaccounted for. We still want a contriver. A designing mind is neither supplied by this supposition nor dispensed with. If the difficulty were diminished the farther we went back, by going back indefinitely we might exhaust it. And this is the only case to which this sort of reasoning applies. Where there is a tendency, or, as we increase the number of terms, a continual approach toward a limit, there, by supposing the number of terms to be what is called infinite, we may conceive the limit to be attained; but where there is no such tendency or approach, nothing is effected by lengthening the series. There is no difference as to the point in question, whatever there may be as to many points, between one series and another-between a series which is finite and a series which is infinite. A chain composed of an infinite number of links, can no more support itself, than a chain composed of a finite number of links. And of this we are assured, though we never can have tried the experiment; because, by increasing the number of links, from ten, for instance, to a hundred, from a hundred to a thousand, etc., we make not the smallest approach, we observe not the smallest tendency toward self-support. There is no difference in this respect-yet there may be a great difference in several respects-between a chain of a greater or less length, between one chain and another, between one that is finite and one that is infinite. This very much resembles the case before us. The machine which we are inspecting demonstrates, by its construction, contrivance and design. Contrivance must have had a contriver, design a designer, whether the machine immediately proceeded from another machine or not. That circumstance alters not the case. That other machine may, in like manner, have proceeded from a former machine; nor does that alter the case; contrivance must have had a contriver. That former one from one preceding it: no alteration still; a contriver is still necessary. No tendency is perceived, no approach toward a diminution of this necessity. It is the same with any and every succession of these machines-a succession of ten, of a hundred, of a thousand; with one series, as with another-a series which is finite, as with a series which is infinite. In whatever other respects they may differ, in this they do not. In all equally, contrivance and design are unaccounted for.

The question is not simply, How came the first watch into existence? which question, it may be pretended, is done away by supposing the series of watches thus produced from one another to have been infinite, and consequently to have had no such first for which it was necessary to provide a cause. This, perhaps, would have been nearly the state of the question, if

nothing had been before us but an unorganized, unmechanized substance, without mark or indication of contrivance. It might be difficult to show that such substance could not have existed from eternity, either in succession-if it were

possible, which I think it is not, for unorganized bodies to spring from one another-or by individual perpetuity. But that is not the question now. To suppose it to be so is to suppose that it made no difference whether he had found a watch or a stone. As it is, the metaphysics of that question have no place; for, in the watch which we are examining are seen contrivance, design, an end, a purpose, means for the end, adaptation to the purpose. And the question which irresistably presses upon our thoughts is, whence this contrivance and design, The thing required is the intending mind, the adapting hand, the intelligence by which that hand was directed. This question, this demand is not shaken off by increasing a number or succession of substances destitute of these properties; nor the more, by increasing that number to infinity. If it be said that, upon the supposition of one watch being produced from another in the course of that other's movements and by means of the mechanism within it, we have a cause for the watch in my hand, namely, the watch from which it proceeded; I deny that for the design, the contrivance, the suitableness of means to an end, the adaptation of instruments to a use, all of which we discover in the watch, we have any cause whatever. It is in vain, therefore, to assign a series of such causes or to allege that a series may be carried back to infinity; for I do not admit that we have yet any cause at all for the phenomena, still less any series of causes either finite or infinite. Here is contrivance but no contriver; proofs of design, but no designer.

V. Our observer would further also reflect that the maker of the watch before him was in truth and reality the maker of every watch produced from it; there being no difference, except that the latter manifests a more exquisite skill, between the making of another watch with his own hands, by the mediation of files, lathes, chisels, etc., and the disposing, fixing, and inserting of these instruments, or of others equivalent to them, in the body of the watch already made, in such a manner as to form a new watch in the course of the movements which he had given to the old one. It is only working by one set of tools instead of another.

The conclusion which the first examination of the watch, of its works, construction, and movement, suggested, was that it must have had, for cause and author of that construction, an artificer who understood its mechanism and designed its use. This conclusion is invincible. A second examination presents us with a new discovery. The watch is found, in the course of its movement, to produce another watch similar to itself; and not only so, but we perceive in it a system of organization separately calculated for that purpose. What effect would this discovery have or ought it to have upon our former inference? What, as has already been said, but to increase beyond measure our admiration of the skill which had been employed in the formation of such a machine? Or shall it, instead of this, all at once turn us round to an opposite conclusion, namely, that no art or skill whatever has been concerned in the business, although all other evidences of art and skill remain as they were, and this last and supreme piece of art be now added to the rest? Can this be maintained without absurdity? Yet this is atheism....

CHAPTER FIVE: APPLICATION OF THE ARGUMENT CONTINUED

Every observation which was made in our first chapter concerning the watch may be repeated with strict propriety concerning the eye, concerning animals, concerning plants, concerning, indeed, all the organized parts of the works of nature. As,

I. When we are inquiring simply after the existence of an intelligent Creator, imperfection, inaccuracy, liability to disorder, occasional irregularities may subsist in a considerable degree without inducing any doubt into the question; just as a watch may frequently

go wrong, seldom perhaps exactly right, may be faulty in some parts, defective in some, without the smallest ground of suspicion from thence arising that it was not a watch, not made, or not made for the purpose ascribed to it. When faults are

pointed out, and when a question is started concerning the skill of the artist or dexterity with which the work is executed, then, indeed, in order to defend these qualities from accusation, we must be able either to expose some intractableness and imperfection in the materials or point out some invincible difficulty in the execution, into which imperfection and difficulty the matter of complaint may be resolved; or, if we cannot do this, we must adduce such specimens of consummate art and contrivance proceeding from the same hand as may convince the inquirer of the existence, in the case before him, of impediments like those which we have mentioned, although, what from the nature of the case is very likely to happen, they be unknown and unperceived by him. This we must do in order to vindicate the artist's skill, or at least the perfection of it; as we must also judge of his intention and of the provisions employed in fulfilling that intention, not from an instance in which they fail but from the great plurality of instances in which they succeed. But, after all, these are different questions from the question of the artist's existence; or, which is the same, whether the thing before us be a work of art or not; and the questions ought always to be kept separate in the mind. So likewise it is in the works of nature. Irregularities and imperfections are of little or no weight in the consideration when that consideration relates simply to the existence of a Creator. When the argument respects His attributes, they are of weight; but are then to be taken in conjunction-the attention is not to rest upon them, but they are to be taken in conjunction with the unexceptionable evidence which we possess of skill, power, and benevolence displayed in other instances; which evidences may, in strength, number, and variety, be such and may so overpower apparent blemishes as to induce us, upon the most reasonable ground, to believe that these last ought to be referred to some cause, though we be ignorant of it, other than defect of knowledge or of benevolence in the author....

Dialogues Concerning Natural Religion

DAVID HUME

David Hume (1711-1776) was a leading philosopher of the Enlightenment, the author of a famous history of England, and the tutor of Adam Smith in political economy. He spent most of his life in Edinburgh.

First published in 1779.

PART II

I must own, Cleanthes, said Demea, that nothing can more surprise me than the light in which you have all along put this argument. By the whole tenor of your discourse, one would imagine that you were maintaining the Being of a God against the cavils of atheists and infidels, and were necessitated to become a champion for that fundamental principle of all religion. But this, I hope, is not by any means a question among us. No man, no man at least of common sense, I am persuaded, ever entertained a serious doubt with regard to a truth so certain and self-evident. The question is not concerning the being but the nature of God. This I affirm, from the infirmities of human understanding, to be altogether incomprehensible and unknown to us. The essence of that supreme Mind, his attributes, the manner of his existence, the very nature of his duration-these and every particular which regards so divine a Being are mysterious to men. Finite, weak, and blind creatures, we ought to humble ourselves in his august presence, and, conscious of our frailties, adore in silence his infinite perfections which eye hath not seen, ear

hath not heard, neither hath it entered into the heart of man to conceive. They are covered in a deep cloud from human curiosity; it is profaneness to attempt penetrating through these sacred obscurities, and, next to the impiety of denying his existence, is the temerity of prying into his nature and essence, decrees and attributes.

But lest you should think that my piety has here got the better of my philosophy, I shall support my opinion, if it needs any support, by a very great authority. I might cite all the divines, almost from the foundation of Christianity, who have ever treated of this or any other theological subject; but I shall confine myself, at present, to one equally celebrated for piety and philosophy. It is Father Malebranche who, I remember, thus expresses himself. 'One ought not so much,' says he, 'to call God a spirit in order to express positively what he is, as in order to signify that he is not matter. He is a Being infinitely perfect of this we cannot doubt. But in the same manner as we ought not to imagine, even supposing him corporeal, that he is clothed with a human body, as the anthropomorphites asserted, under colour that that figure was the most perfect of any, so neither ought we to imagine that the spirit of God has human ideas or bears any resemblance to our spirit, under colour that we know nothing more perfect than a human mind. We ought rather to believe that as he comprehends the perfections of matter without being material ... he comprehends also the perfections of created spirits without being spirit, in the manner we conceive spirit: that his true name is He that is, or, in other words, Being without restriction, All Being, the Being infinite and universal.'

After so great an authority, Demea, replied Philo, as that which you have produced, and a thousand more which you might produce, it would appear ridiculous in me to add my sentiment or express my approbation of your doctrine. But surely, where reasonable men treat these subjects, the question can never be concerning the being but only the nature of the Deity. The former truth, as you well observe, is unquestionable and self-evident. Nothing exists without a cause; and the original cause of this universe (whatever it be) we call God, and piously ascribe to him every species of perfection. Whoever scruples this fundamental truth deserves every punishment which can be inflicted among philosophers, to wit, the greatest ridicule, contempt, and disapprobation. But as all perfection is entirely relative, we ought never to imagine that we comprehend the attributes of this divine Being, or to suppose that his perfections have any analogy or likeness to the perfections of a human creature. Wisdom, thought, design, knowledge-these we justly ascribe to him because these words are honourable among men, and we have no other language or other conceptions by which we can express our adoration of him. But let us beware lest we think that our ideas anywise correspond to his perfections, or that his attributes have any resemblance to these qualities among men. He is infinitely superior to our limited view and comprehension, and is more the object of worship in the temple than of disputation in the schools.

In reality, Cleanthes, continued he, there is no need of having recourse to that affected scepticism so displeasing to you in order to come at this determination. Our ideas reach no further than our experience. We have no experience of divine attributes and operations. I need not conclude my syllogism, you can draw the inference yourself. And it is a pleasure to me (and I hope to you, too) that just reasoning and sound piety here concur in the same conclusion, and both of them establish the adorably mysterious and incomprehensible nature of the Supreme Being.

Not to lose any time in circumlocutions, said Cleanthes, addressing himself to Demea, much less in replying to the pious declamations of Philo, I shall briefly explain how I conceive this matter. Look round the world, contemplate the whole and every part of it: you will find it to

be nothing but one great machine, subdivided into an infinite number of lesser machines, which again admit of subdivisions to a degree beyond what human senses and faculties can trace and explain. All these various machines, and even their most minute parts, are adjusted to each other with an accuracy which ravishes into admiration

all men who have ever contemplated them. The curious adapting of means to ends, throughout all nature, resembles exactly, though it much exceeds, the productions of human contrivance of human design, thought, wisdom, and intelligence. Since therefore the effects resemble each other, we are led to infer, by all the rules of analogy, that the causes also resemble, and that the Author of nature is somewhat similar to the mind of man, though possessed of much larger faculties, proportioned to the grandeur of the work which he has executed. By this argument a posteriori, and by this argument alone, do we prove at once the existence of a Deity and his similarity to human mind and intelligence.

I shall be so free, Cleanthes, said Demea, as to tell you that from the beginning I could not approve of your conclusion concerning the similarity of the Deity to men, still less can I approve of the mediums by which you endeavour to establish it. What! No demonstration of the Being of God! No abstract arguments! No proofs a priori! Are these which have hitherto been so much insisted on by philosophers all fallacy, all sophism? Can we reach no farther in this subject than experience and probability? I will not say that this is betraying the cause of a Deity; but surely, by this affected candour, you give advantages to atheists which they never could obtain by the mere dint of argument and reasoning.

What I chiefly scruple in this subject, said Philo, is not so much that all religious arguments are by Cleanthes reduced to experience, as that they appear not to be even the most certain and irrefragable of that inferior kind. That a stone will fall, that fire will burn, that the earth has solidity, we have observed a thousand and a thousand times; and when any new instance of this nature is presented, we draw without hesitation the accustomed inference. The exact similarity of the cases gives us a perfect assurance of a similar event, and a stronger evidence is never desired nor sought after. But wherever you depart, in the least, from the similarity of the cases, you diminish proportionably the evidence, and may at last bring it to a very weak analogy, which is confessedly liable to error and uncertainty. After having experienced the circulation of the blood in human creatures, we make no doubt that it takes place in Titius and Maevius; but from its circulation in frogs and fishes it is only a presumption, though a strong one, from analogy that it takes place in men and other animals. The analogical reasoning is much weaker when we infer the circulation of the sap in vegetables from our experience that the blood circulates in animals; and those who hastily followed that imperfect analogy are found, by more accurate experiments, to have been mistaken.

If we see a house, Cleanthes, we conclude, with the greatest certainty, that it had an architect or builder because this is precisely that species of effect which we have experienced to proceed from that species of cause. But surely you will not affirm that the universe bears such a resemblance to a house that we can with the same certainty infer a similar cause, or that the analogy is here entire and perfect. The dissimilitude is so striking that the utmost you can here pretend to is a guess, conjecture, a presumption concerning a similar cause; and how that pretension will be received in the world, I leave you to consider.

It would surely be very ill received, replied Cleanthes; and I should be deservedly blamed and detested did I allow that the proofs of Deity amounted to no more than a guess or conjecture. But is the whole adjustment of means to ends in a house and in the universe so slight a resemblance? the economy of final causes? the order, proportion, and arrangement of every part?

Steps of a stair are plainly contrived that human legs may use them in mounting; and this inference is certain and infallible. Human legs are also contrived for walking and mounting; and this inference, I allow, is not altogether so certain because of the dissimilarity which you remark; but does it, therefore, deserve the name only of presumption or conjecture?

Good God! cried Demea, interrupting him, where are we? Zealous defenders of religion allow that the proofs of a Deity fall short of perfect evidence! And you, Philo, on whose assistance I depended in proving the adorable mysteriousness of the Divine Nature, do you assent to all these extravagant opinions of Cleanthes? For what other name can I give them? or, why spare my censure when such principles are advanced, supported by such an authority, before so young a man as Pamphilus?

You seem not to apprehend, replied Philo, that I argue with Cleanthes in his own way, and, by showing him the dangerous consequences of his tenets, hope at last to reduce him to our opinion. But what sticks most with you, I observe, is the representation which Cleanthes has made of the argument a posteriori; and, finding that the argument is likely to escape your hold and vanish into air, you think it so disguised that you can scarcely believe it to be set in its true light. Now, however much I may dissent, in other respects, from the dangerous principle of Cleanthes, I must allow that he has fairly represented that argument, and I shall endeavour so to state the matter to you that you will entertain no further scruples with regard to it.

Were a man to abstract from everything which he knows or has seen, he would be altogether incapable, merely from his own ideas, to determine what kind of scene the universe must be, or to give the preference to one state or situation of things above another. For as nothing which he clearly conceives could be esteemed impossible or implying a contradiction, every chimera of his fancy would be upon an equal footing; nor could he assign any just reason why he adheres to one idea or system, and rejects the others which are equally possible.

Again, after he opens his eyes and contemplates the world as it really is, it would be impossible for him at first to assign the cause of any one event, much less of the whole of things, or of the universe. He might set his fancy a rambling, and she might bring him in an infinite variety of reports and representations. These would all be possible, but, being all equally possible, he would never of himself give a satisfactory account for his preferring one of them to the rest. Experience alone can point out to him the true cause of any phenomenon.

Now, according to this method of reasoning, Demea, it follows (and is, indeed, tacitly allowed by Cleanthes himself) that order, arrangement, or the adjustment of final causes, is not of itself any proof of design, but only so far as it has been experienced to proceed from that principle. For aught we can know a priori, matter may contain the source or spring of order originally within itself, as well as mind does; and there is no more difficulty in conceiving that the several elements, from an internal unknown cause, may fall into the most exquisite arrangement, than to conceive that their ideas, in the great universal mind, from a like internal unknown cause, fall into that arrangement. The equal possibility of both these suppositions is allowed. But, by experience, we find (according to Cleanthes) that there is a difference between them. Throw several pieces of steel together, without shape or form, they will never arrange themselves so as to compose a watch. Stone and mortar and wood, without an architect, never erect a house. But the ideas in a human mind, we see, by an unknown, inexplicable economy, arrange themselves so as to form the plan of a watch or house. Experience, therefore, proves that there is an original principle of order in mind, not in matter. From similar effects we infer similar causes. The adjustment of means to ends is alike in the universe, as in a machine of human contrivance. The causes, therefore, must be resembling.

I was from the beginning scandalized, I must own, with this resemblance which is asserted between the Deity and human creatures, and must conceive it to imply such a degradation of the Supreme Being as no sound theist could endure. With your assistance, therefore, Demea, I shall endeavour to defend what you justly call the adorable mysteriousness of the Divine Nature, and shall refute this reasoning of Cleanthes, provided he allows that I have made a fair representation of it.

When Cleanthes had assented, Philo, after a short pause, proceeded in the following manner.

That all inferences, Cleanthes, concerning fact are founded on experience, and that all experimental reasonings are founded on the supposition that similar causes prove similar effects, and similar effects similar causes, I shall not at present much dispute with you. But observe, I entreat you, with what extreme caution all just reasoners proceed in the transferring of experiments to similar cases. Unless the cases be exactly similar, they repose no perfect confidence in applying their past observation to any particular phenomenon. Every alteration of circumstances occasions a doubt concerning the event; and it requires new experiments to prove certainly that the new circumstances are of no moment or importance. A change in bulk, situation, arrangement, age, disposition of the air, or surrounding bodies any of these particulars may be attended with the most unexpected consequences. And unless the objects be quite familiar to us, it is the highest temerity to expect with assurance, after any of these changes, an event similar to that which before fell under our observation. The slow and deliberate steps of philosophers here, if anywhere, are distinguished from the precipitate march of the vulgar, who, hurried on by the smallest similitude, are incapable of all discernment or consideration.

But can you think, Cleanthes, that your usual phlegm and philosophy have been preserved in so wide a step as you have taken when you compared to the universe houses, ships, furniture, machines, and, from their similarity in some circumstances, inferred a similarity in their causes? Thought, design, intelligence, such as we discover in men and other animals, is no more than one of the springs and principles of the universe, as well as heat or cold, attraction or repulsion, and a hundred others which fall under daily observation. It is an active cause by which some particular parts of nature, we find, produce alterations on other parts. But can a conclusion, with any propriety, be transferred from parts to the whole? Does not the great disproportion bar all comparison and inference? From observing the growth of a hair, can we learn anything concerning the generation of a man? Would the manner of a leaf's blowing, even though perfectly known, afford us any instruction concerning the vegetation of a tree?

But allowing that we were to take the operations of one part of nature upon another for the foundation of our judgment concerning the origin of the whole (which never can be admitted), yet why select so minute, so weak, so bounded a principle as the reason and design of animals is found to be upon this planet? What peculiar privilege has this little agitation of the brain which we call thought, that we must thus make it the model of the whole universe? Our partiality in our own favour does indeed present it on all occasions, but sound philosophy ought carefully to guard against so natural an illusion.

So far from admitting, continued Philo, that the operations of a part can afford us any just conclusion concerning the origin of the whole, I will not allow any one part to form a rule for another part if the latter be very remote from the former. Is there any reasonable ground to conclude that the inhabitants of other planets possess thought, intelligence, reason, or anything similar to these faculties in men? When nature has so extremely diversified her manner of operation in this small globe, can we imagine that she incessantly copies herself throughout so

immense a universe? And if thought, as we may well suppose, be confined merely to this narrow corner and has even there so limited a sphere of action, with what propriety can we assign it for the original cause of all things? The narrow views of a peasant who makes his domestic economy the rule for the government of kingdoms is in comparison a pardonable sophism.

But were we ever so much assured that a thought and reason resembling the human were to be found throughout the whole universe, and were its activity elsewhere vastly greater and more commanding than it appears in this globe, yet I cannot see why the operations of a world constituted, arranged, adjusted, can with any propriety be extended to a world which is in its embryo state, and is advancing towards that constitution and arrangement. By observation we know somewhat of the economy, action, and nourishment of a finished animal, but we must transfer with great caution that observation to the growth of a foetus in the womb, and still more to the formation of an animalcule in the loins of its male parent. Nature, we find, even from our limited experience, possesses an infinite number of springs and principles which incessantly discover themselves on every change of her position and situation. And what new and unknown principles would actuate her in so new and unknown a situation as that of the formation of a universe, we cannot, without the utmost temerity, pretend to determine.

A very small part of this great system, during a very short time, is very imperfectly discovered to us; and do we thence pronounce decisively concerning the origin of the whole?

Admirable conclusion! Stone, wood, brick, iron, brass, have not, at this time, in this minute globe of earth, an order or arrangement without human art and contrivance; therefore, the universe could not originally attain its order and arrangement without something similar to human art. But is a part of nature a rule for another part very wide of the former? Is it a rule for the whole? Is a very small part a rule for the universe? Is nature in one situation a certain rule for nature in another situation vastly different from the former?

And can you blame me, Cleanthes, if I here imitate the prudent reserve of Simonides, who, according to the noted story, being asked by Hiero, What God was? desired a day to think of it, and then two days more; and after that manner continually prolonged the term, without ever bringing in his definition or description? Could you even blame me if I had answered, at first, that I did not know, and was sensible that this subject lay vastly beyond the reach of my faculties? You might cry out sceptic and raillier, as much as you pleased; but, having found in so many other subjects much more familiar the imperfections and even contradictions of human reason, I never should expect any success from its feeble conjectures in a subject so sublime and so remote from the sphere of our observation. When two species of objects have always been observed to be conjoined together, I can infer, by custom, the existence of one wherever I see the existence of the other; and this I call an argument from experience. But how this argument can have place where the objects, as in the present case, are single, individual, without parallel or specific resemblance, may be difficult to explain. And will any man tell me with a serious countenance that an orderly universe must arise from some thought and art like the human because we have experience of it? To ascertain this reasoning it were requisite that we had experience of the origin of worlds; and it is not sufficient, surely, that we have seen ships and cities arise from human art and contrivance.

Philo was proceeding in this vehement manner, somewhat between jest and earnest, as it appeared to me, when he observed some signs of impatience in Cleanthes, and then immediately stopped short. What I had to suggest, said Cleanthes, is only that you would not abuse terms, or make use of popular expressions to subvert philosophical reasonings. You know that the vulgar often distinguish reason from experience, even where the question relates only to matter of fact

and existence, though it is found, where that reason is properly analyzed, that it is nothing but a species of experience. To prove by experience the origin of the universe from mind is not more contrary to common speech than to prove the motion of the earth from the same principle. And a caviller might raise all the same objections to the Copernican system which you have urged against my reasonings. Have you other earths, might he say, which you have seen to move? Have...

Yes! cried Philo, interrupting him, we have other earths. Is not the moon another earth, which we see to turn around its centre? Is not Venus another earth, where we observe the same phenomenon? Are not the revolutions of the sun also a confirmation, from analogy, of the same theory? All the planets, are they not earths which revolve about the sun? Are not the satellites moons which move round Jupiter and Saturn, and along with these primary planets round the sun? These analogies and resemblances, with others which I have not mentioned, are the sole proofs of the Copernican system; and to you it belongs to consider whether you have any analogies of the same kind to support your theory.

In reality, Cleanthes, continued he, the modern system of astronomy is now so much received by all inquirers, and has become so essential a part even of our earliest education, that we are not commonly very scrupulous in examining the reasons upon which it is founded. It is now become a matter of mere curiosity to study the first writers of that subject who had the frill force of prejudice to encounter, and were obliged to turn their arguments on every side in order to render them popular and convincing. But if we peruse Galileo's famous Dialogues concerning the system of the world, we shall find that that great genius, one of the sublimest that ever existed, first bent all his endeavours to prove that there was no foundation for the distinction commonly made

between elementary and celestial substances. The schools, proceeding from the illusions of sense, had carried this distinction very far; and had established the latter substances to be ingenerable, incorruptible, unalterable, impassible; and had assigned all the opposite qualities to the former. But Galileo, beginning with the moon, proved its similarity in every particular to the earth: its convex figure, its natural darkness when not illuminated, its density, its distinction into solid and liquid, the variations of its phases, the mutual illuminations of the earth and moon, their mutual eclipses, the inequalities of the lunar surface, etc. After many instances of this kind, with regard to all the planets, men plainly saw that these bodies became proper objects of experience, and that the similarity of their nature enabled us to extend the same arguments and phenomena from one to the other.

In this cautious proceeding of the astronomers you may read your own condemnation, Cleanthes, or rather may see that the subject in which you are engaged exceeds all human reason and inquiry. Can you pretend to show any such similarity between the fabric of a house and the generation of a universe? Have you ever seen nature in any such situation as resembles the first arrangement of the elements? Have worlds ever been formed under your eye, and have you had leisure to observe the whole progress of the phenomenon, from the first appearance of order to its final consummation? If you have, then cite your experience and deliver your theory.

PART III

How the most absurd argument, replied Cleanthes, in the hands of a man of ingenuity and invention, may acquire an air of probability! Are you not aware, Philo, that it became necessary for Copernicus and his first disciples to prove the similarity of the terrestrial and celestial matter because several philosophers, blinded by old systems and supported by some sensible appearances, had denied this similarity? But that it is by no means necessary that theists should

prove the similarity of the works of nature to those of art because this similarity is self-evident and undeniable? The same matter, a like form; what more is requisite to show an analogy between their causes, and to ascertain the origin of all things from a divine purpose and intention? Your objections, I must freely tell you, are no better than the abstruse cavils of those philosophers who denied motion, and ought to be refuted in the same manner-by illustrations, examples, and instances rather than by serious argument and philosophy.

Suppose, therefore, that an articulate voice were heard in the clouds, much louder and more melodious than any which human art could ever reach; suppose that this voice were extended in the same instant over all nations and spoke to each nation in its own language and dialect; suppose that the words delivered not only contain a just sense and meaning, but convey some instruction altogether worthy of a benevolent Being superior to mankind-could you possibly hesitate a moment concerning the cause of this voice, and must you not instantly ascribe it to some design or purpose? Yet I cannot see but all the same objections (if they merit that appellation) which lie against the system of theism may also be produced against this inference.

Might you not say that all conclusions concerning fact were founded on experience; that, when we hear an articulate voice in the dark and thence infer a man, it is only the resemblance of the effects which leads us to conclude that there is a like resemblance in the cause; but that this extraordinary voice, by its loudness, extent, and flexibility to all languages, bears so little analogy to any human voice that we have no reason to suppose any analogy in their causes; and, consequently, that a rational, wise, coherent speech proceeded, you know not whence, from some accidental whistling of the winds, not from any divine reason or intelligence? You see clearly your own objections in these cavils, and I hope too you see clearly that they cannot possibly have more force in the one case than in the other.

But to bring the case still nearer the present one of the universe, I shall make two suppositions which imply not any absurdity or impossibility. Suppose that there is a natural, universal, invariable language, common to every individual of human race, and that books are natural productions which perpetuate themselves in the same

manner with animals and vegetables, by descent and propagation. Several expressions of our passions contain a universal language: all brute animals have a natural speech, which, however limited, is very intelligible to their own species. And as there are infinitely fewer parts and less contrivance in the finest composition of eloquence than in the coarsest organized body, the propagation of an Iliad or Aeneid is an easier supposition than that of any plant or animal.

Suppose, therefore, that you enter into your library thus peopled by natural volumes containing the most refined reason and most exquisite beauty; could you possibly open one of them and doubt that its original cause bore the strongest analogy to mind and intelligence? When it reasons and discourses; when it expostulates, argues, and enforces its views and topics; when it applies sometimes to the pure intellect, sometimes to the affections; when it collects, disposes, and adorns every consideration suited to the subject; could you persist in asserting that all this, at the bottom, had really no meaning, and that the first formation of this volume in the loins of its original parent proceeded not from thought and design? Your obstinacy, I know, reaches not that degree of firmness; even your sceptical play and wantonness would be abashed at so glaring an absurdity.

But if there be any difference, Philo, between this supposed case and the real one of the universe, it is all to the advantage of the latter. The anatomy of an animal affords many stronger instances of design than the perusal of Livy or Tacitus; and any objection which you start in the former case, by carrying me back to so unusual and extraordinary a scene as the first formation

of worlds, the same objection has place on the supposition of our vegetating library. Choose, then, your party, Philo, without ambiguity or evasion; assert either that a rational volume is no proof of a rational cause or admit of a similar cause to all the works of nature.

Let me here observe, too, continued Cleanthes, that this religious argument, instead of being weakened by that scepticism so much affected by you, rather acquires force from it and becomes more firm and undisputed. To exclude all argument or reasoning of every kind is either affectation or madness. The declared profession of every reasonable sceptic is only to reject abstruse, remote, and refined arguments; to adhere to common sense and the plain instincts of nature; and to assent, wherever any reasons strike him with so full a force that he cannot, without the greatest violence, prevent it. Now the arguments for natural religion are plainly of this kind; and nothing but the most perverse, obstinate metaphysics can reject them. Consider, anatomize the eye, survey its structure and contrivance, and tell me, from your own feeling, if the idea of a contriver does not immediately flow in upon you with a force like that of sensation. The most obvious conclusion, surely, is in favour of design; and it requires time, reflection, and study, to summon up those frivolous though abstruse objections which can support infidelity. Who can behold the male and female of each species, the correspondence of their parts and instincts, their passions and whole course of life before and after generation, but must be sensible that the propagation of the species is intended by nature? Millions and millions of such instances present themselves through every part of the universe, and no language can convey a more intelligible irresistible meaning than the curious adjustment of final causes. To what degree, therefore, of blind dogmatism must one have attained to reject such natural and such convincing arguments?

Some beauties in writing we may meet with which seem contrary to rules, and which gain the affections and animate the imagination in opposition to all the precepts of criticism and to the authority of the established masters of art. And if the argument for theism be, as you pretend, contradictory to the principles of logic, its universal, its irresistible influence proves clearly that there may be arguments of a like irregular nature. Whatever cavils may be urged, an orderly world, as well as a coherent, articulate speech, will still be received as an incontestable proof of design and intention.

It sometimes happens, I own, that the religious arguments have not their due influence on an ignorant savage and barbarian, not because they are obscure and difficult, but because he never asks himself any question with regard to

them. Whence arises the curious structure of an animal? From the copulation of its parents. And these whence? From their parents? A few removes set the objects at such a distance that to him they are lost in darkness and confusion; nor is he actuated by any curiosity to trace them farther. But this is neither dogmatism nor scepticism, but stupidity: a state of mind very different from your sifting, inquisitive disposition, my ingenious friend. You can trace causes from effects; you can compare the most distant and remote objects; and your greatest errors proceed not from barrenness of thought and invention, but from too luxuriant a fertility which suppresses your natural good sense by a profusion of unnecessary scruples and objections.

Here I could observe, Hermippus, that Philo was a little embarrassed and confounded; but, while he hesitated in delivering an answer, luckily for him, Demea broke in upon the discourse and saved his countenance.

Your instance, Cleanthes, said he, drawn from books and language, being familiar, has, I confess, so much more force on that account; but is there not some danger, too, in this very circumstance, and may it not render us presumptuous, by making us imagine we comprehend the Deity and have some adequate idea of his nature and attributes? When I read a volume, I enter

into the mind and intention of the author; I become him, in a manner, for the instant, and have an immediate feeling and conception of those ideas which revolved in his imagination while employed in that composition. But so near an approach we never surely can make to the Deity. His ways are not our ways, his attributes are perfect but incomprehensible. And this volume of nature contains a great and inexplicable riddle, more than any intelligible discourse or reasoning.

The ancient Platonists, you know, were the most religious and devout of all the pagan philosophers, yet many of them, particularly Plotinus, expressly declare that intellect or understanding is not to be ascribed to the Deity, and that our most perfect worship of him consists, not in acts of veneration, reverence, gratitude, or love, but in a certain mysterious self-annihilation or total extinction of all our faculties. These ideas are, perhaps, too far stretched, but still it must be acknowledged that, by representing the Deity as so intelligible and comprehensible, and so similar to a human mind, we are guilty of the grossest and most narrow partiality, and make ourselves the model of the whole universe.

All the sentiments of the human mind, gratitude, resentment, love, friendship, approbation, blame, pity, emulation, envy, have a plain reference to the state and situation of man, and are calculated for preserving the existence and promoting the activity of such a being in such circumstances. It seems, therefore, unreasonable to transfer such sentiments to a supreme existence or to suppose him actuated by them; and the phenomena, besides, of the universe will not support us in such a theory. All our ideas derived from the senses are confessedly false and illusive, and cannot therefore be supposed to have place in a supreme intelligence. And as the ideas of internal sentiment, added to those of the external senses, composed the whole furniture of human understanding, we may conclude that none of the materials of thought are in any respect similar in the human and in the divine intelligence. Now, as to the manner of thinking, how can we make any comparison between them or suppose them anywise resembling? Our thought is fluctuating, uncertain, fleeting, successive, and compounded; and were we to remove these circumstances, we absolutely annihilate its essence, and it would in such a case be an abuse of terms to apply to it the name of thought or reason. At least, if it appear more pious and respectful (as it really is) still to retain these terms when we mention the Supreme Being, we ought to acknowledge that their meaning, in that case, is totally incomprehensible, and that the infirmities of our nature do not permit us to reach any ideas which in the least correspond to the ineffable sublimity of the Divine attributes.

PART IV

It seems strange to me, said Cleanthes, that you, Demea, who are so sincere in the cause of religion, should still maintain the mysterious, incomprehensible nature of the Deity, and should insist so strenuously that he has no manner of likeness

or resemblance to human creatures. The Deity, I can readily allow, possesses many powers and attributes of which we can have no comprehension; but, if our ideas, so far as they go, be not just and adequate and correspondent to his real nature, I know not what there is in this subject worth insisting on. Is the name, without any meaning, of such mighty importance? Or how do you mystics, who maintain the absolute incomprehensibility of the Deity, differ from sceptics or atheists, who assert that the first cause of all is unknown and unintelligible? Their temerity must be very great if, after rejecting the production by a mean a mind resembling the human (for I know of no other) they pretend to assign, with certainty, any other specific intelligible cause; and their conscience must be very scrupulous, indeed, if they refuse to call the universal unknown cause a God or Deity, and to bestow on him as many sublime eulogies and unmeaning epithets as you shall please to require of them.

Who could imagine, replied Demea, that Cleanthes, the calm philosophical Cleanthes, would attempt to refute his antagonists by affixing a nickname to them, and, like the common bigots and inquisitors of the age, have recourse to invective and declamation instead of reasoning? Or does he not perceive that these topics are easily retorted, and that anthropomorphite is an appellation as invidious, and implies as dangerous consequences, as the epithet of mystic with which he has honoured us? In reality, Cleanthes, consider what it is you assert when you represent the Deity as similar to the human mind and understanding. What is the soul of man? A composition of various faculties, passions, sentiments, ideas-united, indeed, into one self or person, but still distinct from each other. When it reasons, the ideas which are the parts of its discourse arrange themselves in a certain form or order which is not preserved entire for a moment, immediately gives place to another arrangement. New opinions, new passions, new affections, new feelings arise which continually diversify the mental scene and produce in it the greatest variety and most rapid succession imaginable. How is this compatible with that perfect immutability and simplicity which all true theists ascribe to the Deity? By the same act, say they, he sees past, present, and future; his love and hatred, his mercy and justice, are one individual operation; he is entire in every point of space, and complete in every instant of duration. No succession, no change, no acquisition, no diminution. What he is implies not in it any shadow of distinction or diversity. And what he is this moment he ever has been and ever will be, without any new judgment, sentiment, or operation. He stands fixed in one simple, perfect state; nor can you ever say, with any propriety, that this act of his is different from that other, or that this judgment or idea has been lately formed and will give place, by succession, to any different judgment or idea.

I can readily allow, said Cleanthes, that those who maintain the perfect simplicity of the Supreme Being, to the extent in which you have explained it, are complete mystics, and chargeable with all the consequences which I have drawn from their opinion. They are, in a word, atheists, without knowing it. For though it be allowed that the Deity possesses attributes of which we have no comprehension, yet ought we never to ascribe to him any attributes which are absolutely incompatible with that intelligent nature essential to him. A mind whose acts and sentiments and ideas are not distinct and successive, one that is wholly simple and totally immutable, is a mind which has no thought, no reason, no will, no sentiment, no love, no hatred; or, in a word, is no mind at all. It is an abuse of terms to give it that appellation, and we may as well speak of limited extension without figure, or of number without composition.

Pray consider, said Philo, whom you are at present inveighing against. You are honouring with the appellation of atheist all the sound, orthodox divines, almost, who have treated of this subject; and you will at last be, yourself, found, according to your reckoning, the only sound theist in the world. But if idolaters be atheists, as, I think, may justly be asserted, and Christian theologians the same, what becomes of the argument, so much celebrated, derived from the universal consent of mankind?

But, because I know you are not much swayed by names and authorities, I shall endeavor to show you, a little more distinctly, the inconveniences of

that anthropomorphism which you have embraced, and shall prove that there is no ground to suppose a plan of the world to be formed in the Divine mind, consisting of distinct ideas, differently arranged, in the same manner as an architect forms in his head the plan of a house which he intends to execute.

It is not easy, I own, to see what is gained by this supposition, whether we judge of the matter by reason or by experience. We are still obliged to mount higher in order to find the cause

of this cause which you had assigned as satisfactory and conclusive.

If reason (I mean abstract reason derived from inquiries a priori) be not alike mute with regard to all questions concerning cause and effect, this sentence at least it will venture to pronounce: that a mental world or universe of ideas requires a cause as much as does a material world or universe of objects, and, if similar in its arrangement, must require a similar cause. For what is there in this subject which should occasion a different conclusion or inference? In an abstract view, they are entirely alike; and no difficulty attends the one supposition which is not common to both of them.

Again, when we will needs force experience to pronounce some sentence, even on these subjects which lie beyond her sphere, neither can she perceive any material difference in this particular between those two kinds of worlds, but finds them to be governed by similar principles, and to depend upon an equal variety of causes in their operations. We have specimens in miniature of both of them. Our own mind resembles the one; a vegetable or animal body the other. Let experience, therefore, judge from these samples. Nothing seems more delicate, with regard to its causes, than thought; and as these causes never operate in two persons after the same manner, so we never find two persons who think exactly alike. Nor indeed does the same person think exactly alike at any two different periods of time. A difference of age, of the disposition of his body, of weather, of food, of company, of books, of passions-any of these particulars, or others more minute, are sufficient to alter the curious machinery of thought and communicate to it very different movements and operations. As far as we can judge, vegetables and animal bodies are not more delicate in their motions, nor depend upon a greater variety or more curious adjustment of springs and principles.

How, therefore, shall we satisfy ourselves concerning the cause of that Being whom you suppose the Author of nature, or, according to your system of anthropomorphism, the ideal world into which you trace the material? Have we not the same reason to trace that ideal world into another ideal world or new intelligent principle? But if we stop and go no farther, why go so far? Why not stop at the material world? How can we satisfy ourselves without going on in infinitum? And, after all, what satisfaction is there in that infinite progression? Let us remember the story of the Indian philosopher and his elephant. It was never more applicable than to the present subject. If the material world rests upon a similar ideal world, this ideal world must rest upon some other, and so on without end. It were better, therefore, never to look beyond the present material world. By supposing it to contain the principle of its order within itself, we really assert it to be God; and the sooner we arrive at that Divine Being, so much the better. When you go one step beyond the mundane system, you only excite an inquisitive humour which it is impossible ever to satisfy.

To say that the different ideas which compose the reason of the Supreme Being fall into order of themselves and by their own nature is really to talk without any precise meaning. If it has a meaning, I would fain know why it is not as good sense to say that the parts of the material world fall into order of themselves and by their own nature. Can the one opinion be intelligible, while the other is not so?

We have, indeed, experience of ideas which fall into order of themselves and without any known cause. But, I am sure, we have a much larger experience of matter which does the same, as in all instances of generation and vegetation where the accurate analysis of the cause exceeds all human comprehension. We have also experience of particular systems of thought and of matter which have no order; of the first in madness, of the second in corruption. Why, then, should we think that order is more essential

to one than the other? And if it requires a cause in both, what do we gain by your system, in tracing the universe of objects into a similar universe of ideas? The first step which we make leads us on for ever. It were, therefore, wise in us to limit all our inquiries to the present world, without looking farther. No satisfaction can ever be attained by these speculations which so far exceed the narrow bounds of human understanding.

It was usual with the Peripatetics, you know, Cleanthes, when the cause of any phenomenon was demanded, to have recourse to their faculties or occult qualities, and to say, for instance, that bread nourished by its nutritive faculty, and senna purged by its purgative. But it has been discovered that this subterfuge was nothing but the disguise of ignorance, and that these philosophers, though less ingenuous, really said the same thing with the sceptics or the vulgar who fairly confessed that they knew not the cause of these phenomena. In like manner, when it is asked, what cause produced order in the ideas of the Supreme Being, can any other reason be assigned by you, anthropomorphites, than that it is a rational faculty, and that such is the nature of the Deity? But why a similar answer will not be equally satisfactory in accounting for the order of the world, without having recourse to any such intelligent creator as you insist on, may be difficult to determine. It is only to say that such is the nature of material objects, and that they are all originally possessed of a faculty of order and proportion. These are only more learned and elaborate ways of confessing our ignorance; nor has the one hypothesis any real advantage above the other, except in its greater conformity to vulgar prejudices.

You have displayed this argument with great emphasis, replied Cleanthes: You seem not sensible how easy it is to answer it. Even in common life, if I assign a cause for any event, is it any objection, Philo, that I cannot assign the cause of that cause, and answer every new question which may incessantly be started? And what philosophers could possibly submit to so rigid a who confess ultimate causes to be totally unknown, and are sensible that the most refined principles into which they trace the phenomena are still to them as inexplicable as these phenomena themselves are to the vulgar. The order and arrangement of nature, the curious adjustment of final causes, the plain use and intention of every part and these bespeak in the clearest language an intelligent cause or author. The heavens and the earth join in the same testimony: The whole chorus of nature raises one hymn to the praises of its Creator. You alone, or almost alone, disturb this general harmony. You start abstruse doubts, cavils, and objections; you ask me what is the cause of this cause? I know not; I care not; that concerns not me. I have found a Deity; and here I stop my inquiry. Let those go farther who are wiser or more enterprising.

I pretend to be neither, replied Philo; and for that very reason I should never, perhaps, have attempted to go so far, especially when I am sensible that I must at last be contented to sit down with the same answer which, without further trouble, might have satisfied me from the beginning. If I am still to remain in utter ignorance of causes and can absolutely give an explication of nothing, I shall never esteem it any advantage to shove off for a moment a difficulty which you acknowledge must immediately, in its full force, recur upon me. Naturalists indeed very justly explain particular effects by more general causes, though these general causes themselves should remain in the end totally inexplicable, but they never surely thought it satisfactory to explain a particular effect by a particular cause which was no more to be accounted for than the effect itself. An ideal system, arranged of itself, without a precedent design, is not a whit more explicable than a material one which attains its order in a like manner; nor is there any more difficulty in the latter supposition than in the former.

PART V

But to show you still more inconveniences, continued Philo, in your anthropomorphism, please to take a new survey of your principles. Like effects prove like causes. This is the experimental argument; and this, you say too, is the sole theological argument. Now it is certain that the liker the effects are which are seen and the liker the causes

which are inferred, the stronger is the argument. Every departure on either side diminishes the probability and renders the experiment less conclusive. You cannot doubt of the principle; neither ought you to reject its consequences.

All the new discoveries in astronomy which prove the immense grandeur and magnificence of the works of nature are so many additional arguments for a Deity, according to the true system of theism; but, according to your hypothesis of experimental theism, they become so many objections, by removing the effect still farther from all resemblance to the effects of human art and contrivance. For if Lucretius, even following the old system of the world, could exclaim:

Quis regere immensi summam, quis habere profundi

Indu manu validas potis est moderanter habenas?

Quis pariter coelos omnes convertere? et omnes Ignibus aetheriis terras suffire feraces?

Omnibus inque locis esse omni tempore praesto?²

[The English translation is in the end note.]

If Tully [Cicero] esteemed this reasoning so natural as to put it into the mouth of his Epicurean:

Quibus enim oculis animi intueri potuit vester Plato fabricam illam tanti operis, qua construi a Deo atque aedificari mundum facit? quae molitio? quae ferramenta? qui vectes? quae machinae? qui ministri tanti muneris fuerunt? quemadmodum autem obedire et parere voluntati architecti aer, ignis, aqua, terra potuerunt?³

[The English translation is in the end note.]

If this argument, I say, had any force in former ages, how much greater must it have at present when the bounds of Nature are so infinitely enlarged and such a magnificent scene is opened to us? It is still more unreasonable to form our idea of so unlimited a cause from our experience of the narrow productions of human design and invention.

The discoveries by microscopes, as they open a new universe in miniature, are still objections, according to you, arguments, according to me. The further we push our researches of this kind, we are still led to infer the universal cause of all to be vastly different from mankind, or from any object of human experience and observation.

And what say you to the discoveries in anatomy, chemistry, botany? ... These surely are no objections, replied Cleanthes; they only discover new instances of art and contrivance, it is still the image of mind reflected on us from innumerable objects. Add a mind like the human, said Philo. I know of no other, replied Cleanthes. And the liker, the better, insisted Philo. To be sure, said Cleanthes.

Now, Cleanthes, said Philo, with an air of alacrity and triumph, mark the consequences. First, by this method of reasoning you renounce all claim to infinity in any of the attributes of the Deity. For, as the cause ought only to be proportioned to the effect, and the effect, so far as it falls under our cognizance, is not infinite, what pretensions have we, upon your suppositions, to ascribe that attribute to the Divine Being? You will still insist that, by removing him so much from all similarity to human creatures, we give in to the most arbitrary hypothesis, and at the same time weaken all proofs of his existence.

Secondly, you have no reason, on your theory, for ascribing perfection to the Deity, even

in his finite capacity, or for supposing him free from every error, mistake, or incoherence, in his undertakings. There are many inexplicable difficulties in the works of nature which, if we allow a perfect author to be proved a priori, are easily solved, and become only seeming difficulties from the narrow capacity of man, who cannot trace infinite relations. But according to your method of reasoning, these difficulties become all real, and, perhaps, will be insisted on as new instances of likeness to human art and contrivance. At least, you must acknowledge that it is impossible for us to tell, from our limited views, whether this system contains any great faults or deserves any considerable praise if compared to other possible and even real systems. Could a peasant, if the Aeneid were read to him, pronounce that poem to be absolutely faultless, or even assign to it its proper rank among the productions of human wit, he who had never seen any other production?

But were this world ever so perfect a production, it must still remain uncertain whether all the excellences of the work can justly be ascribed to the workman. If we survey a ship, what an exalted idea must we form of the ingenuity of the carpenter who framed so complicated, useful, and beautiful a machine? And what surprise must we feel when we find him a stupid mechanic who imitated others, and copied an art which, through a long succession of ages, after multiplied trials, mistakes, corrections, deliberations, and controversies, had been gradually improving? Many worlds might have been botched and bungled, throughout an eternity, ere this system was struck out; much labour lost, many fruitless trials made, and a slow but continued improvement carried on during infinite ages in the art of world-making. In such subjects, who can determine where the truth, nay, who can conjecture where the probability lies, amidst a great number of hypotheses which may be proposed, and a still greater which may be imagined?

sight, some counterpoising weight equal to it; but it is still allowed to doubt whether that weight be an aggregate of several distinct bodies or one uniform united mass. And if the weight requisite very much exceeds anything which we have ever seen conjoined in any single body, the former supposition becomes still more probable and natural. An intelligent being of such vast power and capacity as is necessary to produce the universe, or, to speak in the language of ancient philosophy, so prodigious an animal exceeds all analogy and even comprehension. And what shadow of an argument, continued Philo, can you produce from your hypothesis to prove the unity of the Deity? A great number of men join in building a house or ship, in rearing a city, in framing a commonwealth; why may not several deities combine in contriving and framing a world? This is only so much greater similarity to human affairs. By sharing the work among several, we may so much further limit the attributes of each, and get rid of that extensive power and knowledge which must be supposed in one deity, and which, according to you, can only serve to weaken the proof of his existence. And if such foolish, such vicious creatures as man can yet often unite in framing and executing one plan, how much more those deities or demons, whom we may suppose several degrees more perfect!

To multiply causes without necessity is indeed contrary to true philosophy, but this principle applies not to the present case. Were one deity antecedently proved by your theory who were possessed of every attribute requisite to the production of the universe, it would be needless, I own (though not absurd) to suppose any other deity existent. But while it is still a question whether all these attributes are united in one subject or dispersed among several independent beings, by what phenomena in nature can we pretend to decide the controversy? Where we see a body raised in a scale, we are sure that there is in the opposite scale, however concealed from

But further, Cleanthes: Men are mortal, and renew their species by generation; and this is

common to all living creatures. The two great sexes of male and female, says Milton, animate the world. Why must this circumstance, so universal, so essential, be excluded from those numerous and limited deities? Behold, then, the theogeny of ancient times brought back upon us.

And why not become a perfect anthropomorphite? Why not assert the deity or deities to be corporeal, and to have eyes, a nose, mouth, ears, etc.? Epicurus maintained that no man had ever seen reason but in a human figure; therefore, the gods must have a human figure. And this argument, which is deservedly so much ridiculed by Cicero, becomes, according to you, solid and philosophical.

In a word, Cleanthes, a man who follows your hypothesis is able, perhaps, to assert or conjecture that the universe sometime arose from something like design; but beyond that position he cannot ascertain one single circumstance, and is left afterwards to fix every point of his theology by the utmost license of fancy and hypothesis. This world, for aught he knows, is very faulty and imperfect, compared to a superior standard, and was only the first rude essay of some infant deity who afterwards abandoned it, ashamed of his lame performance; it is the work only of some dependent, inferior deity, and is the object of derision to his superiors; it is the production of old age and dotage in some superannuated deity, and ever since his death has run on at adventures, from the first impulse and active force which it received from him. You justly give signs of horror, Demea, at these strange suppositions; but these, and a thousand more of the same kind,

are Cleanthes' suppositions, not mine. From the moment the attributes of the Deity are supposed finite, all these have place. And I cannot, for my part, think that so wild and unsettled a system of theology is, in any respect, preferable to none at all.

These suppositions I absolutely disown, cried Cleanthes: they strike me, however, with no horror, especially when proposed in that rambling way in which they drop from you. On the contrary, they give me pleasure when I see that, by the utmost indulgence of your imagination, you never get rid of the hypothesis of design in the universe, but are obliged at every turn to have recourse to it. To this concession I adhere steadily; and this I regard as a sufficient foundation for religion.

PART VI

It must be a slight fabric, indeed, said Demea, which can be erected on so tottering a foundation. While we are uncertain whether there is one deity or many, whether the deity or deities, to whom we owe our existence, be perfect or imperfect, subordinate or supreme, dead or alive, what trust or confidence can we repose in them? What devotion or worship address to them? What veneration or obedience pay them? To all the purposes of life the theory of religion becomes altogether useless; and even with regard to speculative consequences its uncertainty, according to you, must render it totally precarious and unsatisfactory.

To render it still more unsatisfactory, said Philo, there occurs to me another hypothesis which must acquire an air of probability from the method of reasoning so much insisted on by Cleanthes. That like effects arise from like causes this principle he supposes the foundation of all religion. But there is another principle of the same kind, no less certain and derived from the same source of experience, that, where several known circumstances are observed to be similar, the unknown will also be found similar. Thus, if we see the limbs of a human body, we conclude that it is also attended with a human head, though hid from us. Thus, if we see, through a chink in a wall, a small part of the sun, we conclude that were the wall removed we should see the whole body. In short, this method of reasoning is so obvious and familiar that no scruple can ever be made with regard to its solidity.

Now, if we survey the universe, so far as it falls under our knowledge, it bears a great resemblance to an animal or organized body, and seems actuated with a like principle of life and motion. A continual circulation of matter in it produces no disorder; a continual waste in every part is incessantly repaired; the closest sympathy is perceived throughout the entire system; and each part or member, in performing its proper offices, operates both to its own preservation and to that of the whole. The world, therefore, I infer, is an animal; and the Deity is the soul of the world, actuating it, and actuated by it.

You have too much learning, Cleanthes, to be at all surprised at this opinion which, you know, was maintained by almost all the theists of antiquity, and chiefly prevails in their discourses and reasonings. For though, sometimes, the ancient philosophers reason from final causes, as if they thought the world the workmanship of God, yet it appears rather their favourite notion to consider it as his body whose organization renders it subservient to him. And it must be confessed that, as the universe resembles more a human body than it does the works of human art and contrivance, if our limited analogy could ever, with any propriety, be extended to the whole of nature, the inference seems juster in favour of the ancient than the modern theory.

There are many other advantages, too, in the former theory which recommended it to the ancient theologians. Nothing more repugnant to all their notions because nothing more repugnant to common experience than mind without body, a mere spiritual substance which fell not under their senses nor comprehension, and of which they had not observed one single instance throughout all nature. Mind and body they knew because they felt both; an order, arrangement, organization, or internal machinery, in both they likewise knew, after the same manner; and it could not but seem reasonable to transfer this experience to the universe, and to suppose the divine mind and body to be also coeval and to have, both of them, order

and arrangement naturally inherent in them and inseparable from them.

Here, therefore, is a new species of anthropomorphism, Cleanthes, on which you may deliberate, and a theory which seems not liable to any considerable difficulties. You are too much superior, surely, to systematical prejudices to find any more difficulty in supposing an animal body to be, originally, of itself or from unknown causes, possessed of order and organization, than in supposing a similar order to belong to mind. But the vulgar prejudice that body and mind ought always to accompany each other ought not, one should think, to be entirely neglected; since it is founded on vulgar experience, the only guide which you profess to follow in all these theological inquiries. And if you assert that our limited experience is an unequal standard by which to judge of the unlimited extent of nature, you entirely abandon your own hypothesis, and must thenceforward adopt our mysticism, as you call it, and admit of the absolute incomprehensibility of the Divine Nature.

This theory, I own, replied Cleanthes, has never before occurred to me, though a pretty natural one; and I cannot readily, upon so short an examination and reflection, deliver any opinion with regard to it. You are very scrupulous, indeed, said Philo. Were I to examine any system of yours, I should not have acted with half that caution and reserve in stating objections and difficulties to it. However, if anything occur to you, you will oblige us by proposing it.

Why then, replied Cleanthes, it seems to me that, though the world does, in many circumstances, resemble an animal body, yet is the analogy also defective in many circumstances the most material: no organs of sense; no seat of thought or reason; no one precise origin of motion and action. In short, it seems to bear a stronger resemblance to a vegetable than to an animal, and your inference would be so far inconclusive in favour of the soul of the world.

But, in the next place, your theory seems to imply the eternity of the world; and that is a

principle which, I think, can be refuted by the strongest reasons and probabilities. I shall suggest an argument to this purpose which, I believe, has not been insisted on by any writer. Those who reason from the late origin of arts and sciences, though their inference wants not force, may perhaps be refuted by considerations derived from the nature of human society, which is in continual revolution between ignorance and knowledge, liberty and slavery, riches and poverty; so that it is impossible for us, from our limited experience, to foretell with assurance what events may or may not be expected. Ancient learning and history seem to have been in great danger of entirely perishing after the inundation of the barbarous nations; and had these convulsions continued a little longer or been a little more violent, we should not probably have now known what passed in the world a few centuries before us. Nay, were it not for the superstition of the popes, who preserved a little jargon of Latin in order to support the appearance of an ancient and universal church, that tongue must have been utterly lost; in which case the Western world, being totally barbarous, would not have been in a fit disposition for receiving the Greek language and learning, which was conveyed to them after the sacking of Constantinople. When learning and books had been extinguished, even the mechanical arts would have fallen considerably to decay; and it is easily imagined that fable or tradition might ascribe to them a much later origin than the true one. This vulgar argument, therefore, against the eternity of the world seems a little precarious.

But here appears to be the foundation of a better argument. Lucullus was the first that brought cherry-trees from Asia to Europe, though that tree thrives so well in many European climates that it grows in the woods without any culture. Is it possible that, throughout a whole eternity, no European had ever passed into Asia and thought of transplanting so delicious a fruit into his own country? Or if the tree was once transplanted and propagated, how could it ever afterwards perish? Empires may rise and fall, liberty and slavery succeed alternately, ignorance and knowledge give place to each other; but the cherry-tree will still remain in the woods of Greece, Spain, and Italy, and will never be affected by the revolutions of human society.

It is not two thousand years since vines were transplanted into France, though there is no climate in the world more favourable to them. It is not three centuries since horses, cows, sheep, swine, dogs, corn, were known in America. Is it possible that during the revolutions of a whole there never arose a Columbus who might open the communication between Europe and that continent? We may as well imagine that all men would wear stockings for ten thousand years, and never have the sense to think of garters to tie them. All these seem convincing proofs of the youth or rather infancy of the world, as being founded on the operation of principles more constant and steady than those by which human society is governed and directed. Nothing less than a total convulsion of the elements will ever destroy all the European animals and vegetables which are now to be found in the Western world.

And what argument have you against such convulsions? replied Philo. Strong and almost incontestable proofs may be traced over the whole earth that every part of this globe has continued for many ages entirely covered with water. And though order were supposed inseparable from matter, and inherent in it, yet may matter be susceptible of many and great revolutions, through the endless periods of eternal duration. The incessant changes to which every part of it is subject seem to intimate some such general transformations; though, at the same time, it is observable that all the changes and corruptions of which we have ever had experience are but passages from one state of order to another; nor can matter ever rest in total deformity and confusion. What we see in the parts, we may infer in the whole; at least, that is the method of reasoning on which you rest your whole theory. And were I obliged to defend any

particular system of this nature, which I never willingly should do, I esteem none more plausible than that which ascribes an eternal inherent principle of order to the world, though attended with great and continual revolutions and alterations. This at once solves all difficulties; and if the solution, by being so general, is not entirely complete and satisfactory, it is at least a theory that we must sooner or later have recourse to, whatever system we embrace. How could things have been as they are, were there not an original inherent principle of order somewhere, in thought or in matter? And it is very indifferent to which of these we give the preference. Chance has no place, on any hypothesis, sceptical or religious. Everything is surely governed by steady, inviolable laws. And were the inmost essence of things laid open to us, we should then discover a scene of which, at present, we can have no idea. Instead of admiring the order of natural beings, we should clearly see that it was absolutely impossible for them, in the smallest article, ever to admit of any other disposition.

Were anyone inclined to revive the ancient pagan theology which maintained, as we learned from Hesiod, that this globe was governed by 30,000 deities, who arose from the unknown powers of nature, you would naturally object, Cleanthes, that nothing is gained by this hypothesis; and that it is as easy to suppose all men animals, beings more numerous but less perfect, to have sprung immediately from a like origin. Push the same inference a step further, and you will find a numerous society of deities as explicable as one universal deity who possesses within himself the powers and perfections of the whole society. All these systems, then, of Scepticism, Polytheism, and Theism, you must allow, on your principles, to be on a like footing, and that no one of them has any advantage over the others. You may thence learn the fallacy of your principles.

PART VII

But here, continued Philo, in examining the ancient system on the soul of the world there strikes me, all of a sudden, a new idea which, if just, must go near to subvert all your reasoning, and destroy even your first inferences on which you repose such confidence. If the universe bears a greater likeness to animal bodies and to vegetables than to the works of human art, it is more probable that its cause resembles the cause of the former than that of the latter, and its origin ought rather to be ascribed to generation or vegetation than to reason or design. Your conclusion, even according to your own principles, is therefore lame and defective.

Pray open up this argument a little further, said Demea, for I do not rightly apprehend it in that concise manner in which you have expressed it.

Our friend Cleanthes, replied Philo, as you have heard, asserts that, since no question of fact can be proved otherwise than by experience, the existence of a Deity admits not of proof from any other medium. The world, says he, resembles the works of human contrivance; therefore its cause must also resemble that of the other. Here we may remark that the operation of one very small part of nature, to wit, man, upon another very small part, to wit, that inanimate matter lying within his reach, is the rule by which Cleanthes judges of the origin of the whole; and he measures objects, so widely disproportioned, by the same individual standard. But to waive all objections drawn from this topic, I affirm that there are other parts of the universe (besides the machines of human invention) which bear still a greater resemblance to the fabric of the world, and which, therefore, afford a better conjecture concerning the universal origin of this system. These parts are animals and vegetables. The world plainly resembles more an animal or a vegetable than it does a watch or a knitting-loom. Its cause, therefore, it is more probable, resembles the cause of the former. The cause of the former is generation or vegetation. The cause, therefore, of the world we may infer to be something similar or analogous to generation or

vegetation.

But how is it conceivable, said Demea, that the world can arise from anything similar to vegetation or generation?

Very easily, replied Philo. In like manner as a tree sheds its seed into the neighboring fields and produces other trees, so the great vegetable, the world, or this planetary system, produces within itself certain seeds which, being scattered into the surrounding chaos, vegetate into new worlds. A comet, for instance, is the seed of a world; and after it has been fully ripened, by passing from sun to sun, and star to star, it is, at last, tossed into the unformed elements which everywhere surround this universe, and immediately sprouts up into a new system.

Or if, for the sake of variety (for I see no other advantage), we should suppose this world to be an animal: a comet is the egg of this animal; and in like manner as an ostrich lays its egg in the sand, which, without any further care, hatches the egg and produces a new animal, so ... I understand you, says Demca. But what wild, arbitrary suppositions are these! What data have you for such extraordinary conclusions? And is the slight, imaginary resemblance of the world to a vegetable or an animal sufficient to establish the same inference with regard to both? Objects which are in general so widely different, ought they to be a standard for each other?

Right, cries Philo: This is the topic on which I have all along insisted. I have still asserted that we have no data to establish any system of cosmogony. Our experience, so imperfect in itself and so limited both in extent and duration, can afford us no probable conjecture concerning the whole of things. But if we must needs fix on some hypothesis, by what rule, pray, ought we to determine our choice? Is there any other rule than the greater similarity of the objects compared? And does not a plant or an animal, which springs from vegetation or generation, bear a stronger resemblance to the world than does any artificial machine, which arises from reason and design?

But what is this vegetation and generation of which you talk? said Demca. Can you explain their operations, and anatomize that fine internal structure on which they depend?

As much, at least, replied Philo, as Cleanthes can explain the operations of reason, or anatomize that internal structure on which it depends. But without any such elaborate disquisitions, when I see an animal, I infer that it sprang from generation; and that with as great certainty as you conclude a house to have been reared by design. These words generation, reason mark only certain powers and energies in nature whose effects are known, but whose essence is incomprehensible; and one of these principles, more than the other, has no privilege for being made a standard to the whole of nature.

In reality, Demea, it may reasonably be expected that the larger the views are which we take of things, the better will they conduct us in our conclusions concerning such extraordinary and such magnificent subjects. In this little corner of the world alone, there are four principles, reason, instinct, generation, vegetation, which are similar to each other, and are the causes of similar effects. What a number of other principles may we naturally suppose in the immense extent and variety of the universe could we travel from planet to planet, and from system to system, in order to examine each part of this mighty fabric? Any one of these four principles above mentioned (and a hundred others which lie open to our conjecture) may afford us a theory by which to judge of the origin of the world; and it is a palpable and egregious partiality to confine our view entirely to that principle by which our own minds operate. Were this principle more intelligible on that account, such a partiality might be somewhat excusable; but reason, in its internal fabric and structure, is really as little known to us as instinct or vegetation; and, perhaps, even that vague, undeterminate word nature, to which the vulgar refer

everything is not at the bottom more inexplicable. The effects of these principles are all known to us from experience; but the principles themselves and their manner of operation are totally unknown; nor is it less intelligible or less conformable to experience to say that the world arose by vegetation, from a seed shed by another world, than to say that it arose from a divine reason or contrivance, according to the sense in which Cleanthes understands it.

But methinks, said Demca, if the world had a vegetative quality and could sow the seeds of new worlds into the infinite chaos, this power would be still an additional argument for design in its author. For whence could arise so wonderful a faculty but from design? Or how can order spring from anything which perceives not that order which it bestows?

You need only look around you, replied Philo, to satisfy yourself with regard to this question. A tree bestows order and organization on that tree which springs from it, without knowing the order; an animal in the same manner on its offspring; a bird on its nest; and instances of this kind are even more frequent in the world than those of order which arise from reason and contrivance. To say that all this order in animals and vegetables proceeds ultimately from design is begging the question; nor can that great point be ascertained otherwise than by proving, a priori, both that order is, from its nature, inseparably attached to thought and that it can never of itself or from original unknown principles belong to matter.

But further, Demea, this objection which you urge can never be made use of by Cleanthes, without renouncing a defense which he has already made against one of my objections. When I inquired concerning the cause of that supreme reason and intelligence into which he resolves everything, he told me that the impossibility of satisfying such inquiries could never be admitted as an objection in any species of philosophy. We must stop somewhere, says he; nor is it ever within the reach of human capacity to explain ultimate causes or show the last connections of any objects. It is sufficient if any steps, as far as we go, are supported by experience and observation. Now that vegetation and generation, as well as reason, are experienced to be principles of order in nature is undeniable. If I rest my system of cosmogony on the former, preferably to the latter, it is at my choice. The matter seems entirely arbitrary. And when Cleanthes asks me what is the cause of my great vegetative or generative faculty, I am equally entitled to ask him the cause of his great reasoning principle. These questions we have agreed to forbear on both sides; and it is chiefly his interest on the present occasion to stick to this agreement. Judging by our limited and imperfect experience, generation has some privileges above reason; for we see every day the latter arise from the former, never the former from the latter.

Compare, I beseech you, the consequences on both sides. The world, say I, resembles an animal; therefore it is an animal, therefore it arose from generation. The steps, I confess, are wide, yet there is some small appearance of analogy in each step. The world, says Cleanthes, resembles a machine; therefore it is a machine, therefore it arose from design. The steps are here equally wide, and the analogy less striking. And if he pretends to carry on my hypothesis a step further, and to infer design or reason from the great principle of generation on which I insist, I may, with better authority, use the same freedom to push further his hypothesis, and infer a divine generation or theogony from his principle of reason. I have at least some faint shadow of experience, which is the utmost that can ever be attained in the present

subject. Reason, in innumerable instances, is observed to arise from the principle of generation, and never to arise from any other principle.

Hesiod and all the ancient mythologists were so struck with this analogy that they universally explained the origin of nature from an animal birth, and copulation. Plato, too, so far

as he is intelligible, seems to have adopted some such notion in his *Tivnaeus*.

The Brahmins assert that the world arose from an infinite spider, who spun this whole complicated mass from his bowels, and annihilates afterwards the whole or any part of it, by absorbing it again and resolving it into his own essence. Here is a species of cosmogony which appears to us ridiculous because a spider is a little contemptible animal whose operations we are never likely to take for a model of the whole universe. But still here is a new species of analogy, even in our globe. And were there a planet wholly inhabited by spiders (which is very possible), this inference would there appear as natural and irrefragable as that which in our planet ascribes the origin of all things to design and intelligence, as explained by Cleanthes. Why an orderly system may not be spun from the belly as well as from the brain, it will be difficult for him to give a satisfactory reason.

I must confess, Philo, replied Cleanthes, that, of all men living, the task which you have undertaken, of raising doubts and objections, suits you best and seems, in a manner, natural and unavoidable to you. So great is your fertility of invention than I am not ashamed to acknowledge myself unable, on a sudden, to solve regularly such out-of-the-way difficulties as you incessantly start upon me, though I clearly see, in general, their fallacy and error. And I question not, but you are yourself, at present, in the same case, and have not the solution so ready as the objection, while you must be sensible that common sense and reason are entirely against you, and that such whimsies as you have delivered may puzzle but never can convince us.

PART VIII

What you ascribe to the fertility of my invention, replied Philo, is entirely owing to the nature of the subject. In subjects adapted to the narrow compass of human reason there is commonly but one determination which carries probability or conviction with it; and to a man of sound judgment all other suppositions but that one appear entirely absurd and chimerical. But in such questions as the present, a hundred contradictory views may preserve a kind of imperfect analogy, and invention has here full scope to exert itself. Without any great effort of thought, I believe that I could, in an instant, propose other systems of cosmogony which would have some faint appearance of truth, though it is a thousand, a million to one if either yours or any one of mine be the true system.

For instance, what if I should revive the old Epicurean hypothesis? This is commonly, and I believe justly, esteemed the most absurd system that has yet been proposed; yet I know not whether, with a few alterations, it might not be brought to bear a faint appearance of probability. Instead of supposing matter infinite, as Epicurus did, let us suppose it finite. A finite number of particles is only susceptible of finite transpositions; and it must happen, in an eternal duration, that every possible order or position must be tried an infinite number of times. This world, therefore, with all its events, even the most minute, has before been produced and destroyed, and will again be produced and destroyed, without any bounds and limitations. No one who has a conception of the powers of infinite, in comparison of finite, will ever scruple this determination.

But this supposes, said Demea, that matter can acquire motion without any voluntary agent or first mover.

And where is the difficulty, replied Philo, of that supposition? Every event, before experience, is equally difficult and incomprehensible; and every event, after experience, is equally easy and intelligible. Motion, in many instances, from gravity, from elasticity, from electricity, begins in matter, without any known voluntary agent; and to suppose always, in these cases, an unknown voluntary agent is mere hypothesis and hypothesis attended with no advantages. The beginning of motion in matter itself is as conceivable a priori as its

communication from mind and intelligence.

Besides, why may not motion have been propagated by impulse through all eternity, and the same stock of it, or nearly the same, be still upheld in the universe? As much is lost by the composition of motion, as much is gained by its resolution. And whatever the causes are, the fact is certain that matter is and always has been in continual agitation, as far as human experience or tradition reaches. There is not probably, at present, in the whole universe, one particle of matter at absolute rest.

And this very consideration, too, continued Philo, which we have stumbled on in the course of the argument, suggests a new hypothesis of cosmogony that is not absolutely absurd and improbable. Is there a system, an order, an economy of things, by which matter can preserve that perpetual agitation which seems essential to it, and yet maintain a constancy in the forms which it produces? There certainly is such an economy, for this is actually the case with the present world. The continual motion of matter, therefore, in less than infinite transpositions, must produce this economy or order, and by its very nature, that order, when once established, supports itself for many ages if not to eternity. But wherever matter is so poised, arranged, and adjusted, as to continue in perpetual motion, and yet preserve a constancy in the forms, its situation must, of necessity, have all the same appearance of art and contrivance which we observe at present. All the parts of each form must have a relation to each other and to the whole; and the whole itself must have a relation to the other parts of the universe, to the element in which the form subsists, to the materials with which it repairs its waste and decay, and to every other form which is hostile or friendly. A defect in any of these particulars destroys the form, and the matter of which it is composed is again set loose, and is thrown into irregular motions and fermentations till it unite itself to some other regular form. If no such form be prepared to receive it, and if there be a great quantity of this corrupted matter in the universe, the universe itself is entirely disordered, whether it be the feeble embryo of a world in its first beginnings that is thus destroyed or the rotten carcase of one languishing in old age and infirmity. In either case, a chaos ensues till finite though innumerable revolutions produce, at last, some forms whose parts and organs are so adjusted as to support the forms amidst a continued succession of matter.

Suppose (for we shall endeavour to vary the expression) that matter were thrown into any position by a blind, unguided force; it is evident that this first position must, in all probability, be the most confused and most disorderly imaginable, without any resemblance to those works of human contrivance which, along with a symmetry of parts, discover an adjustment of means to ends and a tendency to self-preservation. If the actuating force cease after this operation, matter must remain for ever in disorder and continue an immense chaos, without any proportion or activity. But suppose that the actuating force, whatever it be, still continues in matter, this first position will immediately give place to a second which will likewise, in all probability, be as disorderly as the first, and so on through many successions of changes and revolutions. No particular order or position ever continues a moment unaltered. The original force, still remaining in activity, gives a perpetual restlessness to matter. Every possible situation is produced and instantly destroyed. If a glimpse or dawn of order appears for a moment, it is instantly hurried away and confounded by that never-ceasing force which actuates every part of matter.

Thus the universe goes on for many ages in a continued succession of chaos and disorder. But is it not possible that it may settle at last, so as not to lose its motion and active force (for that we have supposed inherent in it), yet so as to preserve an uniformity of appearance, amidst the continual motion and fluctuation of its parts? This we find to be the case with the universe at

present. Every individual is perpetually changing, and every part of every individual; and yet the whole remains, in appearance, the same. May we not hope for such a position or rather be assured of it from the eternal revolutions of unguided matter; and may not this account for all the appearing wisdom and contrivance which is in the universe? Let us contemplate the subject a little, and we shall find that this adjustment if attained by matter of a seeming stability in the

forms, with a real and perpetual revolution or motion of parts, affords a plausible, if not a true, solution of the difficulty.

It is in vain, therefore, to insist upon the uses of the parts in animals or vegetables, and their curious adjustment to each other. I would fain know how an animal could subsist unless its parts were so adjusted? Do we not find that it immediately perishes whenever this adjustment ceases, and that its matter, corrupting, tries some new form? It happens indeed that the parts of the world are so well adjusted that some regular form immediately lays claim to this corrupted matter; and if it were not so, could the world subsist? Must it not dissolve, as well as the animal, and pass through new positions and situations till in great but finite succession it fall, at last, into the present or some such order?

It is well, replied Cleanthes, you told us that this hypothesis was suggested on a sudden, in the course of the argument. Had you had leisure to examine it, you would soon have perceived the insuperable objections to which it is exposed. No form, you say, can subsist unless it possess those powers and organs requisite for its subsistence; some new order or economy must be tried, and so on, without intermission, till at last some order which can support and maintain itself is fallen upon. But according to this hypothesis, whence arise the many conveniences and advantages which men and all animals possess? Two eyes, two ears are not absolutely necessary for the subsistence of the species. The human race might have been propagated and preserved without horses, dogs, cows, sheep, and those innumerable fruits and products which serve to our satisfaction and enjoyment. If no camels had been created for the use of man in the sandy deserts of Africa and Arabia, would the world have been dissolved? If no loadstone had been framed to give that wonderful and useful direction to the needle, would human society and the human kind have been immediately extinguished? Though the maxims of nature be in general very frugal, yet instances of this kind are far from being rare; and any one of them is a sufficient proof of a benevolent giver rise to the order and arrangement of the universe.

At least, you may safely infer, said Philo, that the foregoing hypothesis is so far incomplete and imperfect, which I shall not scruple to allow. But can we ever reasonably expect greater success in any attempts of this nature? Or can we ever hope to erect a system of cosmogony that will be liable to no exceptions, and will contain no circumstance repugnant to our limited and imperfect experience of the analogy of nature? Your theory itself cannot surely pretend to any such advantage, even though you have run into anthropomorphism, the better to preserve a conformity to common experience. Let us once more put it to trial. In all instances which we have ever seen, ideas are copied from real objects, and are ectypal, not archetypal, to express myself in learned terms. You reverse this order and give thought the precedence. In all instances which we have ever seen, thought has no influence upon matter except where that matter is so conjoined with it as to have an equal reciprocal influence upon it. No animal can move immediately anything but the members of its own body; and, indeed, the equality of action and reaction seems to be an universal law of nature; but your theory implies a contradiction to this experience. These instances, with many more which it were easy to collect (particularly the supposition of a mind or system of thought that is eternal or, in other words, an animal ingenerable and immortal)-these instances, I say, may teach all of us sobriety in condemning

each other, and let us see that as no system of this kind ought ever to be received from a slight analogy, so neither ought any to be rejected on account of a small incongruity. For that is an inconvenience from which we can justly pronounce no one to be exempted.

All religious systems, it is confessed, are subject to great and insuperable difficulties. Each disputant triumphs in his turn, while he carries on an offensive war, and exposes the absurdities, barbarities, and pernicious tenets of his antagonist. But all of them, on the whole, prepare a complete triumph for the sceptic, who tells them that no system ought ever to be embraced with regard to such subjects: for this plain reason that no absurdity ought ever to be assented to with regard to any subject. A total suspense of judgment is here our only reasonable resource. And if every attack, as is commonly observed, and no defence among theologians is successful, how complete must be his victory who remains always, with all mankind, on the offensive, and has himself no fixed station or abiding city which he is ever, on any occasion, obliged to defend?

PART IX

But if so many difficulties attend the argument *a posteriori*, said Demea, had we not better adhere to that simple and sublime argument *a priori* which, by offering to us infallible demonstration, cuts off at once all doubt and difficulty? By this argument, too, we may prove the infinity of the Divine attributes, which, I am afraid, can never be ascertained with certainty from any other topic. For how can an effect which either is finite or, for aught we know, may be so how can such an effect, I say, prove an infinite cause? The unity, too, of the Divine Nature it is very difficult, if not absolutely impossible, to deduce merely from contemplating the works of nature; nor will the uniformity alone of the plan, even were it allowed, give us any assurance of that attribute. Whereas the argument *a priori*....

You seem to reason, Demea, interposed Cleanthes, as if those advantages and conveniences in the abstract argument were full proofs of its solidity. But it is first proper, in my opinion, to determine what argument of this nature you choose to insist on; and we shall afterwards, from itself, better than from its useful consequences, endeavour to determine what value we ought to put upon it.

The argument, replied Demea, which I would insist on is the common one. Whatever exists must have a cause or reason of its existence, it being absolutely impossible for anything to produce itself or be the cause of its own existence. In mounting up, therefore, from effects to causes, we must either go on in tracing an infinite succession, without any ultimate cause at all, or must at last have recourse to some ultimate cause that is necessarily existent. Now that the first supposition is absurd may be thus proved. In the infinite chain or succession of causes and effects, each single effect is determined to exist by the power and efficacy of that cause which immediately preceded; but the whole eternal chain or succession, taken together, is not determined or caused by anything, and yet it is evident that it requires a cause or reason, as much as any particular object which begins to exist in time. The question is still reasonable why this particular succession of causes existed from eternity, and not any other succession or no succession at all. If there be no necessarily existent being, any supposition which can be formed is equally possible; nor is there any more absurdity in nothing's having existed from eternity than there is in that succession of causes which constitutes the universe. What was it, then, which determined something to exist rather than nothing, and bestowed being on a particular possibility, exclusive of the rest? External causes, there are supposed to be none. Chance is a word without a meaning. Was it nothing? But that can never produce anything. We must, therefore, have recourse to a necessarily existent Being who carries the reason of his existence in

himself, and who cannot be supposed not to exist, without an express contradiction. There is, consequently, such a Being-that is, there is a Deity.

I shall not leave it to Philo, said Cleanthes, though I know that the starting objections is his chief delight, to point out the weakness of this metaphysical reasoning. It seems to me so obviously ill-grounded, and at the same time of so little consequence to the cause of true piety and religion, that I shall myself venture to show the fallacy of it.

I shall begin with observing that there is an evident absurdity in pretending to demonstrate a matter of fact, or to prove it by arguments a priori. Nothing is demonstrable unless the contrary implies a contradiction. Nothing that is distinctly conceivable implies a contradiction. Whatever we conceive as existent, we can also conceive as nonexistent. There is no being, therefore, whose nonexistence implies a contradiction. Consequently there is no being whose existence is demonstrable. I propose this argument as entirely decisive, and am willing to rest the whole controversy upon it.

It is pretended that the Deity is a necessarily existent being; and this necessity of his existence is attempted to be explained by asserting that, if

we knew his whole essence or nature, we should perceive it to be as impossible for him not to exist, as for twice two not to be four. But it is evident that this can never happen, while our faculties remain the same as at present. It will still be possible for us, at any time, to conceive the nonexistence of what we formerly conceived to exist; nor can the mind ever lie under a necessity of supposing any object to remain always in being; in the same manner as we lie under a necessity of always conceiving twice two to be four. The words, therefore, necessary existence have no meaning or, which is the same thing, none that is consistent.

But further, why may not the material universe be the necessarily existent Being, according to this pretended explication of necessity? We dare not affirm that we know all the qualities of matter; and, for aught we can determine, it may contain some qualities which, were they known, would make its nonexistence appear as great a contradiction as that twice two is five. I find only one argument employed to prove that the material world is not the necessarily existent Being; and this argument is derived from the contingency both of the matter and the form of the world. "Any particle of matter," it is said, "may be conceived to be annihilated, and any form may be conceived to be altered. Such an annihilation or alteration, therefore, is not impossible."⁴ But it seems a great partiality not to perceive that the same argument extends equally to the Deity, so far as we have any conception of him, and that the mind can at least imagine him to be nonexistent or his attributes to be altered. It must be some unknown, inconceivable qualities which can make his nonexistence appear impossible or his attributes unalterable; and no reason can be assigned why these qualities may not belong to matter. As they are altogether unknown and inconceivable, they can never be proved incompatible with it.

Add to this that in tracing an eternal succession of objects it seems absurd to inquire for a general cause or first author. How can anything that exists from eternity have a cause, since that relation implies a priority in time and a beginning of existence?

In such a chain, too, or succession of objects, each part is caused by that which preceded it, and causes that which succeeds it. Where then is the difficulty? But the whole, you say, wants a cause. I answer that the uniting of these parts into a whole, like the uniting of several distinct countries into one kingdom, or several distinct members into one body is performed merely by an arbitrary act of the mind, and has no influence on the nature of things. Did I show you the particular causes of each individual in a collection of twenty particles of matter, I should think it very unreasonable should you afterwards ask me what was the cause of the whole twenty. This is

sufficiently explained in explaining the cause of the parts.

Though the reasonings which you have urged, Cleanthes, may well excuse me, said Philo, from starting any further difficulties, yet I cannot forbear insisting still upon another topic. It is observed by arithmeticians that the products of 9 compose always either 9 or some lesser product of 9 if you add together all the characters of which any of the former products is composed. Thus, of 18, 27, 36, which are products of 9, you make 9 by adding 1 to 8, 2 to 7, 3 to 6. Thus 369 is a product also of 9; and if you add 3, 6, and 9, you make 18, a lesser product of 9. To a superficial observer so wonderful a regularity may be admired as the effect either of chance or design; but a skillful algebraist immediately concludes it to be the work of necessity, and demonstrates that it must for ever result from the nature of these numbers. Is it not probable, I ask, that the whole economy of the universe is conducted by a like necessity, though no human algebra can furnish a key which solves the difficulty? And instead of admiring the order of natural beings, may it not happen that, could we penetrate into the intimate nature of bodies, we should clearly see why it was absolutely impossible they could ever admit of any other disposition? So dangerous is it to introduce this idea of necessity into the present question! and so naturally does it afford an inference directly opposite to the religious hypothesis!

But dropping all these abstractions, continued Philo, and confining ourselves to more familiar topics, I shall venture to add an observation that the argument a priori has seldom been found very convincing, except to people of a metaphysical head who have accustomed themselves to abstract reasoning, and who, finding from mathematics that the understanding frequently leads to truth through obscurity, and contrary to first appearances, have transferred the same habit of thinking to subjects where it ought not to have place. Other people, even of good sense and the best inclined to religion, feel always some deficiency in such arguments, though they are not perhaps able to explain distinctly where it lies—a certain proof that men ever did and ever will derive their religion from other sources than from this species of reasoning.

proverbial in all languages. And who can doubt of what all men declare from their own immediate feeling and experience? PART X

It is my opinion, I own, replied Demea, that each man feels, in a manner, the truth of religion within his own breast, and, from a consciousness of his imbecility and misery rather than from any reasoning, is led to seek protection from that Being on whom he and all nature is dependent. So anxious or so tedious are even the best scenes of life that futurity is still the object of all our hopes and fears. We incessantly look forward and endeavour, by prayers, adoration, and sacrifice, to appease those unknown powers whom we find, by experience, so able to afflict and oppress us. Wretched creatures that we are! What resource for us amidst the innumerable ills of life did not religion suggest some methods of atonement, and appease those terrors with which we are incessantly agitated and tormented?

I am indeed persuaded, said Philo, that the best and indeed the only method of bringing everyone to a due sense of religion is by just representations of the misery and wickedness of men. And for that purpose a talent of eloquence and strong imagery is more requisite than that of reasoning and argument. For is it necessary to prove what everyone feels within himself? It is only necessary to make us feel it, if possible, more intimately and sensibly.

The people, indeed, replied Demea, are sufficiently convinced of this great and melancholy truth. The miseries of life, the unhappiness of man, the general corruptions of our nature, the unsatisfactory enjoyment of pleasures, riches, honours these phrases have become almost

In this point, said Philo, the learned are perfectly agreed with the vulgar; and in all letters,

sacred and profane, the topic of human misery has been insisted on with the most pathetic eloquence that sorrow and melancholy could inspire. The poets, who speak from sentiment, without a system, and whose testimony has therefore the more authority, abound in images of this nature. From Homer down to Dr. Young, the whole inspired tribe have ever been sensible that no other representation of things would suit the feeling and observation of each individual.

As to authorities, replied Demea, you need not seek them. Look round this library of Cleanthes. I shall venture to affirm that, except authors of particular sciences, such as chemistry or botany, who have no occasion to treat of human life, there is scarce one of those innumerable writers from whom the sense of human misery has not, in some passage or other, extorted a complaint and confession of it. At least, the chance is entirely on that side; and no one author has ever, so far as I can recollect, been so extravagant as to deny it.

There you must excuse me, said Philo: Leibniz has denied it, and is perhaps the first⁶ who ventured upon so bold and paradoxical an opinion; at least, the first who made it essential to his philosophical system.

And by being the first, replied Demea, might he not have been sensible of his error? For is this a subject in which philosophers can propose to make discoveries especially in so late an age? And can any man hope by a simple denial (for the subject scarcely admits of reasoning) to bear down the united testimony of mankind, founded on sense and consciousness?

And why should man, added he, pretend to an exemption from the lot of all other animals? The whole earth, believe me, Philo, is cursed and polluted. A perpetual war is kindled amongst all living creatures. Necessity, hunger, want stimulate the strong and courageous; fear, anxiety, terror agitate the weak and infirm. The first entrance into life gives anguish to the new-born infant and to its wretched parent; weakness,

impotence, distress attend each stage of that life, and it is, at last finished in agony and horror.

Observe, too, says Philo, the curious artifices of nature in order to embitter the life of every living being. The stronger prey upon the weaker and keep them in perpetual terror and anxiety. The weaker, too, in their turn, often prey upon the stronger, and vex and molest them without relaxation. Consider that innumerable race of insects, which either are bred on the body of each animal or, flying about, infix their stings in him. These insects have others still less than themselves which torment them. And thus on each hand, before and behind, above and below, every animal is surrounded with enemies which incessantly seek his misery and destruction.

Man alone, said Demea, seems to be, in part, an exception to this rule. For by combination in society he can easily master lions, tigers, and bears, whose greater strength and agility naturally enable them to prey upon him.

On the contrary, it is here chiefly, cried Philo, that the uniform and equal maxims of nature are most apparent. Man, it is true, can, by combination, surmount all his real enemies and become master of the whole animal creation; but does he not immediately raise up to himself imaginary enemies, the demons of his fancy, who haunt him with superstitious terrors and blast every enjoyment of life? His pleasure, as he imagines, becomes in their eyes a crime; his food and repose give them umbrage and offence; his very sleep and dreams furnish new materials to anxious fear; and even death, his refuge from every other ill, presents only the dread of endless and innumerable woes. Nor does the wolf molest more the timid flock than superstition does the anxious breast of wretched mortals.

Besides, consider, Demea: This very society by which we surmount those wild beasts, our natural enemies, what new enemies does it not raise to us? What woe and misery does it not

occasion? Man is the greatest enemy of man. Oppression, injustice, contempt, contumely, violence, sedition, war, calumny, treachery, fraud-by these they mutually torment each other, and they would soon dissolve that society which they had formed were it not for the dread of still greater ills which must attend their separation.

But though these external insults, said Demea, from animals, from men, from all the elements, which assault its from a frightful catalogue of woes, they are nothing in comparison of those which arise within ourselves, from the distempered condition of our mind and body. How many lie under the lingering torment of diseases? Hear the pathetic enumeration of the great poet.

Intestine stone and ulcer, colic pangs, Demoniac frenzy, moping melancholy, And moon-struck madness, pining atrophy Marasmus, and wide-wasting pestilence. Dire was the tossing, deep the groans: Despair Tended the sick, busiest from couch to couch And over them triumphant Death his dart Shook: but delay'd to strike, though oft invoc'd 7 With vows, as their chiefgood and final hope.

The disorders of the mind, continued Demea, though more secret, are not perhaps less dismal and vexatious. Remorse, shame, anguish, rage, disappointment, anxiety, fear, dejection, despair who has ever passed through life without cruel inroads from these tormentors? How many have scarcely ever felt any better sensations? Labour and poverty, so abhorred by everyone, are the certain lot of the far greater number; and those few privileged persons who enjoy ease and opulence never reach contentment or true felicity. All the goods of life united would not make a very happy man, but all the ills united would make a wretch indeed; and any one of them almost (and who can be free from every one?), nay, often the absence of one good (and who can possess all?) is sufficient to render life ineligible.

Were a stranger to drop on a sudden into this world, I would show him, as a specimen of its ills, an hospital full of diseases, a prison crowded with malefactors and debtors, a field of battle strewn with carcasses, a fleet floundering in the ocean, a nation languishing under tyranny, famine, or pestilence. To turn the gay side of life to him and give him a notion of its pleasures-whither should I conduct him? To a ball, to an opera, to court? He might justly think that I was only showing him a diversity of distress and sorrow.

There is no evading such striking instances, said Philo, but by apologies which still further aggravate the charge. Why have all men, I ask,

in all ages, complained incessantly of the miseries of life? ... They have no just reason, says one: these complaints proceed only from their discontented, repining, anxious disposition.... And can there possibly, I reply, be a more certain foundation of misery than such a wretched temper?

But if they were really as unhappy as they pretend, says my antagonist, why do they remain in life? ...

Not satisfied with life, afraid of death-

This is the secret chain, say I, that holds us. We are terrified, not bribed to the continuance of our existence.

It is only a false delicacy, he may insist, which a few refined spirits indulge, and which has spread these complaints among the whole race of mankind.... And what is this delicacy, I ask, which you blame? Is it anything but a greater sensibility to all the pleasures and pains of life? And if the man of a delicate, refined temper, by being so much more alive than the rest of the world, is only so much more unhappy, what judgment must we form in general of human life?

Let men remain at rest, says our adversary, and they will be easy. They are willing artificers of their own misery.... No! reply I: an anxious languor follows their repose: disappointment, vexation, trouble, their activity and ambition.

I can observe something like what you mention in some others, replied Cleanthes, but I confess I feel little or nothing of it in myself, and hope that it is not so common as you represent it.

If you feel not human misery yourself, cried Democritus, I congratulate you on so happy a singularity. Others, seemingly the most prosperous, have not been ashamed to vent their complaints in the most melancholy strains. Let us attend to the great, the fortunate emperor, Charles V, when tired with human grandeur, he resigned all his extensive dominions into the hands of his son. In the last harangue which he made on that memorable occasion, he publicly avowed that the greatest prosperities which he had ever enjoyed had been mixed with so many adversities that he might truly say he had never enjoyed any satisfaction or contentment. But did the retired life in which he sought for shelter afford him any greater happiness? If we may credit his son's account, his repentance commenced the very day of his resignation.

Cicero's fortune, from small beginnings, rose to the greatest lustre and renown; yet what pathetic complaints of the ills of life do his familiar letters, as well as philosophical discourses, contain? And suitably to his own experience, he introduces Cato, the great, the fortunate Cato protesting in his old age that had he a new life in his offer he would reject the present.

Ask yourself, ask any of your acquaintance, whether they would live over again the last ten or twenty years of their life. No! but the next twenty, they say, will be better:

And from the dregs of life, hope to receive What the first sprightly running could not give.⁸

Thus, at last, they find (such is the greatness of human misery, it reconciles even contradictions) that they complain at once of the shortness of life and of its vanity and sorrow.

And is it possible, Cleanthes, said Philo, that after all these reflections, and infinitely more which might be suggested, you can still persevere in your anthropomorphism, and assert the moral attributes of the Deity, his justice, benevolence, mercy, and rectitude, to be of the same nature with these virtues in human creatures? His power, we allow, is infinite; whatever he wills is executed; but neither man nor any other animal is happy; therefore, he does not will their happiness. His wisdom is infinite; he is never mistaken in choosing the means to any end; but the course of nature tends not to human or animal felicity; therefore, it is not established for that purpose. Through the whole compass of human knowledge there are no inferences more certain and infallible than these. In what respect, then, do his benevolence and mercy resemble the benevolence and mercy of men?

Epicurus' old questions are yet unanswered.

Is he willing to prevent evil, but not able? then is he impotent. Is he able, but not willing? then is he malevolent. Is he both able and willing? whence then is evil?

You ascribe, Cleanthes (and I believe justly), a purpose and intention to nature. But what, I beseech you, is the object of that curious artifice and machinery which she has displayed in all animals the preservation alone of individuals, and propagation of the species? It seems enough for her purpose, if such a rank be barely upheld in the universe, without any care or concern for the happiness of the members that compose it. No resource for this purpose: no machinery in order merely to give pleasure or ease; no fund of pure joy and contentment; no indulgence without some want or necessity accompanying it. At least, the few phenomena of this

nature are over-balanced by opposite phenomena of still greater importance.

Our sense of music, harmony, and indeed beauty of all kinds, gives satisfaction, without being absolutely necessary to the preservation and propagation of the species. But what racking pains, on the other hand, arise from gouts, gravels, megrims, toothaches, rheumatisms, where the injury to the animal machinery is either small or incurable? Mirth, laughter, play, frolic seem gratuitous satisfactions which have no further tendency; spleen, melancholy, discontent, superstition are pains of the same nature. How then does the Divine benevolence display itself, in the sense of you anthropomorphites? None but we mystics, as you were pleased to call us, can account for this strange mixture of phenomena, by deriving it from attributes infinitely perfect but incomprehensible.

And have you, at last, said Cleanthes smiling, betrayed your intentions, Philo? Your long agreement with Demea did indeed a little surprise me, but I find you were all the while erecting a concealed battery against me. And I must confess that you have now fallen upon a subject worthy of your noble spirit of opposition and controversy. If you can make out the present point, and prove mankind to be unhappy or corrupted, there is an end at once of all religion. For to what purpose establish the natural attributes of the Deity, while the moral are still doubtful and uncertain?

You take umbrage very easily, replied Demea, at opinions the most innocent and the most generally received, even amongst the religious and devout themselves; and nothing can be more surprising than to find a topic like this-concerning the wickedness and misery of man-charged with no less than atheism and profaneness. Have not all pious divines and preachers who have indulged their rhetoric on so fertile a subject, have they not easily, I say, given a solution of any difficulties which may attend it? This world is but a point in comparison of the universe; this life but a moment in comparison of eternity. The present evil phenomena, therefore, are rectified in other regions, and in some future period of existence. And the eyes of men, being then opened to larger views of things, see the whole connection of general laws, and trace, with adoration, the benevolence and rectitude of the Deity through all the mazes and intricacies of his providence.

No! replied Cleanthes, no! These arbitrary suppositions can never be admitted, contrary to matter of fact, visible and uncontroverted. Whence can any cause be known but from its known effects? Whence can any hypothesis be proved but from the apparent phenomena? To establish one hypothesis upon another is building entirely in the air; and the utmost we ever attain by these conjectures and fictions is to ascertain the bare possibility of our opinion, but never can we, upon such terms, establish its reality.

The only method of supporting Divine benevolence-and it is what I willingly embrace-is to deny absolutely the misery and wickedness of man. Your representations are exaggerated; your melancholy views mostly fictitious; your inferences contrary to fact and experience. Health is more common than sickness; pleasure than pain; happiness than misery. And for one vexation which we meet with, we attain, upon computation, a hundred enjoyments.

Admitting your position, replied Philo, which yet is extremely doubtful, you must at the same time allow that, if pain be less frequent than pleasure, it is infinitely more violent and durable. One hour of it is often able to outweigh a day, a week, a month of our common insipid enjoyments; and how many days, weeks, and months are passed by several in the most acute torments? Pleasure, scarcely in one instance, is ever able to reach ecstasy and rapture; and in no one instance can it continue for any time at its highest pitch and altitude. The spirits evaporate, the nerves relax, the fabric is disordered, and the enjoyment quickly degenerates into fatigue and uneasiness. But pain often, good God, how

often! rises to torture and agony; and the longer it continues, it becomes still more genuine agony and torture. Patience is exhausted, courage languishes, melancholy seizes us, and nothing terminates our misery but the removal of its cause or another event which is the sole cure of all evil, but which, from our natural folly, we regard with still greater horror and consternation.

But not to insist upon these topics, continued Philo, though most obvious, certain, and important, I must use the freedom to admonish you, Cleanthes, that you have put the controversy upon a most dangerous issue, and are unawares introducing a total scepticism into the most essential articles of natural and revealed theology. What! no method of fixing a just foundation for religion unless we allow the happiness of human life, and maintain a continued existence even in this world, with all our present pains, infirmities, vexations, and follies, to be eligible and desirable! But this is contrary to everyone's feeling and experience; it is contrary to an authority so established as nothing can subvert. No decisive proofs can ever be produced against this authority; nor is it possible for you to compute, estimate, and compare all the pains and all the pleasures in the lives of all men and of all animals; and thus, by your resting the whole system of religion on a point which, from its very nature, must for ever be uncertain, you tacitly confess that that system is equally uncertain.

But allowing you what never will be believed, at least, what you never possibly can prove, that animal or, at least, human happiness in this life exceeds its misery, you have yet done nothing; for this is not, by any means, what we expect from infinite power, infinite wisdom, and infinite goodness. Why is there any misery at all in the world? Not by chance, surely. From some cause then. Is it from the intention of the Deity? But he is perfectly benevolent. Is it contrary to his intention? But he is almighty. Nothing can shake the solidity of this reasoning, so short, so clear, so decisive, except we assert that these subjects exceed all human capacity, and that our common measures of truth and falsehood are not applicable to which I have all along insisted on, but which you have, from the beginning, rejected with scorn and indignation.

But I will be contented to retire still from this intrenchment, for I deny that you can ever force me in it. I will allow that pain or misery in man is compatible with infinite power and goodness in the Deity, even in your sense of these attributes: what are you advanced by all these concessions? A mere possible compatibility is not sufficient. You must prove these pure, unmixed, and uncontrollable attributes from the present mixed and confused phenomena, and from these alone. A hopeful undertaking! Were the phenomena ever so pure and unmixed, yet, being finite, they would be insufficient for that purpose. How much more, where they are also so jarring and discordant!

Here, Cleanthes, I find myself at ease in my argument. Here I triumph. Formerly, when we argued concerning the natural attributes of intelligence and design, I needed all my sceptical and metaphysical subtilty to elude your grasp. In many views of the universe and of its parts, particularly the latter, the beauty and fitness of final causes strike us with such irresistible force that all objections appear (what I believe they really are) mere cavils and sophisms; nor can we then imagine how it was ever possible for us to repose any weight on them. But there is no view of human life or of the condition of mankind from which, without the greatest violence, we can infer the moral attributes or learn that infinite benevolence, conjoined with infinite power and infinite wisdom, which we must discover by the eyes of faith alone. It is your turn now to tug the labouring oar, and to support your philosophical subtilties against the dictates of plain reason and experience

PART XI

I scruple not to allow, said Cleanthes, that I have been apt to suspect the frequent repetition of the word infinite, which we meet with in all theological writers, to savour more of panegyric than of philosophy, and that any purposes of reasoning, and even of religion, would be better served were we to rest contented with more accurate and more moderate expressions. The terms admirable, excellent, superlatively great, wise, and sufficiently fill the imaginations of men, and anything beyond, besides that it leads into absurdities, has no influence on the affections or sentiments. Thus, in thy present subject, if we abandon all human analogy, as seems your intention, Demea, I am afraid we abandon all religion and retain no conception of the great object of our adoration. If we preserve human analogy, we must forever find it impossible to reconcile any mixture of evil in the universe with infinite attributes; much less can we ever prove the latter from the former. But supposing the Author of nature to be finitely perfect, though far exceeding mankind, a satisfactory account may then be given of natural and moral evil, and every untoward phenomenon be explained and adjusted. A less evil may then be chosen in order to avoid a greater; inconveniences be submitted to in order to reach a desirable end; and, in a word, benevolence, regulated by wisdom and limited by necessity, may produce just such a world as the present. You, Philo, who are so prompt at starting views and reflections and analogies, I would gladly hear, at length, without interruption, your opinion of this new theory; and if it deserve our attention, we may afterwards, at more leisure, reduce it into form.

My sentiments, replied Philo, are not worth being made a mystery of; and, therefore, without any ceremony, I shall deliver what occurs to me with regard to the present subject. It must, I think, be allowed that, if a very limited intelligence whom we shall suppose utterly unacquainted with the universe were assured that it were the production of a very good, wise, and powerful Being, however finite, he would, from his conjectures, form beforehand a different notion of it from what we find it to be by experience; nor would he ever imagine, merely from these attributes of the cause of which he is informed, that the effect could be so full of vice and misery and disorder, as it appears in this life. Supposing now that this person were brought into the world, still assured that it was the workmanship of such a sublime and benevolent Being, he might, perhaps, be surprised at the disappointment, but would never retract his former belief if founded on any very solid argument, since such a limited intelligence must be sensible of his own blindness and ignorance, and must allow that there may be many solutions of those phenomena which will for ever escape his comprehension. But supposing, which is the real case with regard to man, that this creature is not antecedently convinced of a supreme intelligence, benevolent, and powerful, but is left to gather such a belief from the appearances of things, this entirely alters the case, nor will he ever find any reason for such a conclusion. He may be fully convinced of the narrow limits of his understanding, but this will not help him in forming an inference concerning the goodness of superior powers, since he must form that inference from what he knows, not from what he is ignorant of. The more you exaggerate his weakness and ignorance, the more diffident you render him, and give him the greater suspicion that such subjects are beyond the reach of his faculties. You are obliged, therefore, to reason with him merely from the known phenomena, and to drop every arbitrary supposition or conjecture.

Did I show you a house or palace where there was not one apartment convenient or agreeable, where the windows, doors, fires, passages, stairs, and the whole economy of the building were the source of noise, confusion, fatigue, darkness, and the extremes of heat and cold, you would certainly blame the contrivance, without any further examination. The architect would in vain display his subtilty, and prove to you that, if this door or that window were altered, greater ills would ensue. What he says may be strictly true: the alteration of one particular, while

the other parts of the building remain, may only augment the inconveniences. But still you would assert in general that, if the architect had had skill and good intentions, he might have formed such a plan of the whole, and might have adjusted the parts in such a manner as would have remedied all or most of these inconveniences. His ignorance, or even your own ignorance of such a plan, will never convince you of the impossibility of it. If you find any inconveniences and deformities in the building, you will always, without entering into any detail, condemn the architect.

In short, I repeat the question: Is the world, considered in general and as it appears to us in this life, different from what a man or such a limited being would, beforehand, expect from a very

powerful, wise, and benevolent Deity? It must be strange prejudice to assert the contrary. And from thence I conclude that, however consistent the world may be, allowing certain suppositions and conjectures with the idea of such a Deity, it can never afford us an inference concerning his existence. The consistency is not absolutely denied, only the inference. Conjectures, especially where infinity is excluded from the Divine attributes, may perhaps be sufficient to prove a consistency, but can never be foundations for any inference.

There seem to be four circumstances on which depend all or the greatest part of the ills that molest sensible creatures; and it is not impossible but all these circumstances may be necessary and unavoidable. We know so little beyond common life, or even of common life, that, with regard to the economy of a universe, there is no conjecture, however wild, which may not be just, nor any one, however plausible, which may not be erroneous. All that belongs to human understanding, in this deep ignorance and obscurity, is to be sceptical or at least cautious, and not to admit of any hypothesis whatever, much less of any which is supported by no appearance of probability. Now this I assert to be the case with regard to all the causes of evil and the circumstances on which it depends. None of them appear to human reason in the least degree necessary or unavoidable, nor can we suppose them such, without the utmost licence of imagination.

The first circumstance which introduces evil is that contrivance or economy of the animal creation by which pains, as well as pleasures, are employed to excite all creatures to action, and make them vigilant in the great work of self-preservation. Now pleasure alone, in its various degrees, seems to human understanding sufficient for this purpose. All animals might be constantly in a state of enjoyment; but when urged by any of the necessities of nature, such as thirst, hunger, weariness, instead of pain, they might feel a diminution of pleasure by which they might be prompted to seek that object which is necessary to their subsistence. Men pursue pleasure as eagerly as they avoid pain; at least, they might have been so constituted. It seems, therefore, plainly possible to carry on the business of life without any pain. Why then is any animal ever rendered susceptible of such a sensation? If animals can be free from it an hour, they might enjoy a perpetual exemption from it, and it required as particular a contrivance of their organs to produce that feeling as to endow them with sight, hearing, or any of the senses. Shall we conjecture that such a contrivance was necessary, without any appearance of reason, and shall we build on that conjecture as on the most certain truth?

But a capacity of pain would not alone produce pain were it not for the second circumstance, viz., the conducting of the world by general laws; and this seems nowise necessary to a very perfect Being. It is true, if everything were conducted by particular volitions, the course of nature would be perpetually broken, and no man could employ his reason in the conduct of life. But might not other particular volitions remedy this inconvenience? In short, might not the

Deity exterminate all ill, wherever it were to be found, and produce all good, without any preparation or long progress of causes and effects?

Besides, we must consider that, according to the present economy of the world, the course of nature, though supposed exactly regular, yet to us appears not so, and many events are uncertain, and many disappoint our expectations. Health and sickness, calm and tempest, with an infinite number of other accidents whose causes are unknown and variable, have a great influence both on the fortunes of particular persons and on the prosperity of public societies; and indeed all human life, in a manner, depends on such accidents. A being, therefore, who knows the secret springs of the universe might easily, by particular volitions, turn all these accidents to the good of mankind and render the whole world happy, without discovering himself in any operation. A fleet whose purposes were salutary to society might always meet with a fair wind. Good princes enjoy sound health and long life. Persons born to power and authority be framed with good tempers and virtuous dispositions. A few such events as these, regularly and wisely conducted, would change the face of the world, and yet would no more seem to disturb the course of nature or confound human conduct than the present economy of things where the causes are secret and variable

and compounded. Some small touches given to Caligula's brain in his infancy might have converted him into a Trajan. One wave, a little higher than the rest, by burying Caesar and his fortune in the bottom of the ocean, might have restored liberty to a considerable part of mankind. There may, for aught we know, be good reasons why Providence interposes not in this manner, but they are unknown to us; and, though the mere supposition that such reasons exist may be sufficient to save the conclusion concerning the Divine attributes, yet surely it can never be sufficient to establish that conclusion.

If everything in the universe be conducted by general laws, and if animals be rendered susceptible of pain, it scarcely seems possible but some ill must arise in the various shocks of matter and the various concurrence and opposition of general laws; but this ill would be very rare were it not for the third circumstance which I proposed to mention, viz., the great frugality with which all powers and faculties are distributed to every particular being. So well adjusted are the organs and capacities of all animals, and so well fitted to their preservation, that, as far as history or tradition reaches, there appears not to be any single species which has yet been extinguished in the universe. Every animal has the requisite endowments, but these endowments are bestowed with so scrupulous an economy that any considerable diminution must entirely destroy the creature. Wherever one power is increased, there is a proportional abatement in the others. Animals which excel in swiftness are commonly defective in force. Those which possess both are either imperfect in some of their senses or are oppressed with the most craving wants. The human species, whose chief excellence is reason and sagacity, is of all others the most necessitous, and the most deficient in bodily advantages, without clothes, without arms, without food, without lodging, without any convenience of life, except what they owe to their own skill and industry. In short, nature seems to have formed an exact calculation of the necessities of her creatures, and, like a rigid master, has afforded them little more powers or endowments than what are strictly sufficient to supply those necessities. An indulgent parent would have bestowed a large stock in order to guard against accidents, and secure the happiness and welfare of the creature in the most unfortunate concurrence of circumstances. Every course of life would not have been so surrounded with precipices that the least departure from the true path, by mistake or necessity must involve us in misery and ruin. Some reserve, some fund, would have been provided to ensure happiness, nor would the powers and the necessities have been adjusted with

so rigid an economy. The Author of nature is inconceivably powerful; his force is supposed great, if not altogether inexhaustible, nor is there any reason, as far as we can judge, to make him observe this strict frugality in his dealings with his creatures. It would have been better, were his power extremely limited, to have created fewer animals, and to have endowed these with more faculties for their happiness and preservation. A builder is never esteemed prudent who undertakes a plan beyond what his stock will enable him to finish.

In order to cure most of the ills of human life, I require not that man should have the wings of the eagle, the swiftness of the stag, the force of the ox, the arms of the lion, the scales of the crocodile or rhinoceros; much less do I demand the sagacity of an angel or cherubim. I am contented to take an increase in one single power or faculty of his soul. Let him be endowed with a greater propensity to industry and labour, a more vigorous spring and activity of mind, a more constant bent to business and application. Let the whole species possess naturally an equal diligence with that which many individuals are able to attain by habit and reflection, and the most beneficial consequences, without any alloy of ill, is the immediate and necessary result of this endowment. Almost all the moral as well as natural evils of human life arise from idleness; and were our species, by the original constitution of their frame, exempt from this vice or infirmity, the perfect cultivation of land, the improvement of arts and manufactures, the exact execution of every office and duty, immediately follow; and men at once may fully reach that state of society which is so imperfectly attained by the best regulated government. But as industry is a power, and

the most valuable of any, nature seems determined, suitably to her usual maxims, to bestow it on man with a very sparing hand, and rather to punish him severely for his deficiency in it than to reward him for his attainments. She has so contrived his frame that nothing but the most violent necessity can oblige him to labour; and she employs all his other wants to overcome, at least in part, the want of diligence, and to endow him with some share of a faculty of which she has thought fit naturally to bereave him. Here our demands may be allowed very humble, and therefore the more reasonable. If we required the endowments of superior penetration and judgment, of a more delicate taste of beauty, of a nicer sensibility to benevolence and friendship, we might be told that we impiously pretend to break the order of nature, that we want to exalt ourselves into a higher rank of being, that the presents which we require, not being suitable to our state and condition, would only be pernicious to us. But it is hard, I dare to repeat it, it is hard that, being placed in a world so full of wants and necessities, where almost every being and element is either our foe or refuses its assistance ... we should also have our own temper to struggle with, and should be deprived of that faculty which can alone fence against these multiplied evils.

The fourth circumstance whence arises the misery and ill of the universe is the inaccurate workmanship of all the springs and principles of the great machine of nature. It must be acknowledged that there are few parts of the universe which seem not to serve some purpose, and whose removal would not produce a visible defect and disorder in the whole. The parts hang all together, nor can one be touched without affecting the rest, in a greater or less degree. But at the same time, it must be observed that none of these parts or principles, however useful, are so accurately adjusted as to keep precisely within those bounds in which their utility consists; but they are, all of them, apt, on every occasion, to run into the one extreme or the other. One would imagine that this grand production had not received the last hand of the little finished is every part, and so coarse are the strokes with which it is executed. Thus the winds are requisite to convey the vapours along the surface of the globe, and to assist men in navigation; but how

often, rising up to tempests and hurricanes, do they become pernicious? Rains are necessary to nourish all the plants and animals of the earth; but how often are they defective? how often excessive? Heat is requisite to all life and vegetation, but is not always found in the due proportion. On the mixture and secretion of the humours and juices of the body depend the health and prosperity of the animal; but the parts perform not regularly their proper function. What more useful than all the passions of the mind, ambition, vanity, love, anger? But how often do they break their bounds and cause the greatest convulsions in society? There is nothing so advantageous in the universe but what frequently becomes pernicious, by its excess or defect; nor has nature guarded, with the requisite accuracy, against all disorder or confusion. The irregularity is never perhaps so great as to destroy any species, but is often sufficient to involve the individuals in ruin and misery.

On the concurrence, then, of these four circumstances does all or the greatest part of natural evil depend. Were all living creatures incapable of pain, or were the world administered by particular volitions, evil never could have found access into the universe; and were animals endowed with a large stock of powers and faculties, beyond what strict necessity requires, or were the several springs and principles of the universe so accurately framed as to preserve always the just temperament and medium, there must have been very little ill in comparison of what we feel at present. What then shall we pronounce on this occasion? Shall we say that these circumstances are not necessary, and that they might easily have been altered in the contrivance of the universe? This decision seems too presumptuous for creatures so blind and ignorant. Let us be more modest in our conclusions. Let us allow that, if the goodness of the Deity (I mean a goodness like the human) could be established on any tolerable reasons a priori, these phenomena, however untoward, would not be sufficient to subvert that principle, but might easily, in some unknown manner, be reconcilable to it. But let us still assert that, as this goodness is not antecedently established but

must be inferred from the phenomena, there can be no grounds for such an inference while there are so many ills in the universe, and while these ills might so easily have been remedied, as far as human understanding can be allowed to judge on such a subject. I am sceptic enough to allow that the bad appearances, notwithstanding all my reasonings, may be compatible with such attributes as you suppose, but surely they can never prove these attributes. Such a conclusion cannot result from scepticism, but must arise from the phenomena, and from our confidence in the reasonings which we deduce from these phenomena.

Look round this universe. What an immense profusion of beings, animated and organized, sensible and active! You admire this prodigious variety and fecundity. But inspect a little more narrowly these living existences, the only beings worth regarding. How hostile and destructive to each other! How insufficient all of them for their own happiness! How contemptible or odious to the spectator! The whole presents nothing but the idea of a blind nature, impregnated by a great vivifying principle, and pouring forth from her lap, without discernment or parental care, her maimed and abortive children!

Here the Manichæan system occurs as a proper hypothesis to solve the difficulty; and, no doubt, in some respects it is very specious and has more probability than the common hypothesis, by giving a plausible account of the strange mixture of good and ill which appears in life. But if we consider, on the other hand, the perfect uniformity and agreement of the parts of the universe, we shall not discover in it any marks of the combat of a malevolent with a benevolent being. There is indeed an opposition of pains and pleasures in the feelings of sensible creatures; but are not all the operations of nature carried on by an opposition of principles, of hot

and cold, moist and dry, light and heavy? The true conclusion is that the original Source of all things is entirely indifferent to all these principles, and has no more regard to good above ill than to heat above cold, or to drought above moisture, or to light above heavy.

There may four hypotheses be framed concerning the first causes of the universe: that they are endowed with perfect goodness; that they have perfect malice; that they are opposite and have both goodness and malice; that they have neither goodness nor malice. Mixed phenomena can never prove the two former unmixed principles; and the uniformity and steadiness of general laws seem to oppose the third. The fourth, therefore, seems by far the most probable.

What I have said concerning natural evil will apply to moral with little or no variation; and we have no more reason to infer that the rectitude of the Supreme Being resembles human rectitude than that his benevolence resembles the human. Nay, it will be thought that we have still greater cause to exclude from him moral sentiments, such as we feel them, since moral evil, in the opinion of many, is much more predominant above moral good than natural evil above natural good.

But even though this should not be allowed, and though the virtue which is in mankind should be acknowledged much superior to the vice, yet, so long as there is any vice at all in the universe, it will very much puzzle you anthropomorphites how to account for it. You must assign a cause for it, without having recourse to the first cause. But as every effect must have a cause, and that cause another, you must either carry on the progression in infinitum or rest on that original principle, who is the ultimate cause of all things....

Hold! hold! cried Demca: Whither does your imagination hurry you? I joined in alliance with you in order to prove the incomprehensible nature of the Divine Being, and refute the principles of Cleanthes, who would measure everything by human rule and standard. But I now find you running into all the topics of the greatest libertines and infidels, and betraying that holy cause which you seemingly espoused. Are you secretly, then, a more dangerous enemy than Cleanthes himself?

And are you so late in perceiving it? replied Cleanthes. Believe me, Demea, your friend Philo, from the beginning, has been amusing himself at both our expense; and it must be confessed that the injudicious reasoning of our vulgar theology has given him but too just a handle of ridicule. The total infirmity of human reason, the absolute incomprehensibility of the Divine

Nature, the great and universal misery, and still greater wickedness of men-these are strange topics, surely, to be so fondly cherished by orthodox divines and doctors. In ages of stupidity and ignorance, indeed, these principles may safely be espoused; and perhaps no views of things are more proper to promote superstition than such as encourage the blind amazement, the diffidence, and melancholy of mankind. But at present....

Blame not so much, interposed Philo, the ignorance of these reverend gentlemen. They know how to change their style with the times. Formerly, it was a most popular theological topic to maintain that human life was vanity and misery, and to exaggerate all the ills and pains which are incident to men. But of late years, divines, we find, begin to retract this position and maintain, though still with some hesitation, that there are more goods than evils, more pleasures than pains, even in this life. When religion stood entirely upon temper and education, it was thought proper to encourage melancholy, as, indeed, mankind never have recourse to superior powers so readily as in that disposition. But as men have now learned to form principles and to draw consequences, it is necessary to change the batteries, and to make use of such arguments as will endure at least some scrutiny and examination. This variation is the same (and from the

same causes) with that which I formerly remarked with regard to scepticism.

Thus Philo continued to the last his spirit of opposition, and his censure of established opinions. But I could observe that Demea did not at all relish the latter part of the discourse; and he took occasion soon after, on some pretence or other, to leave the company.

NOTES

1. Recherche de la Verite. liv. 3, cap. 9.

2. De Rerum Natura, lib. XI 1111, 1094. (Who can rule the sum, who hold in his hand with controlling force the strong reins, of the immeasurable deep? Who can at once make all the different heavens to roll and warm with ethereal fires all the fruitful earths, or be present in all places at all times?)-(Translation by H. A. J. Munro, G. Bell & Sons, 1920.)

3. De Natura Deorum, lib. I [cap. VIII]. (For with what eyes could your Plato see the construction of so vast a work which, according to him, God was putting together and building? What materials, what tools, what bars, what machines, what servants were employed in such gigantic work? How could the air, fire, water, and earth pay obedience and submit to the will of the architect?)

4. Dr. Clarke [Samuel Clarke, the rationalist theologian (1675-1729)].

5. Republique des Lettres, Aut 1685.

6. That sentiment had been maintained by Dr. King and some few others before Leibniz, though by none of so great fame as that German philosopher.

7. Milton: Paradise Lost, Bk. XI.

8. John Dryden, Aureng-Zebe, Act IV, sc. I.

THE PROBLEM OF EVIL

Rebellion

FYODOR DOSTOEVSKY

Fyodor Dostoevsky (1821-1881) was one of the great Russian novelists of the nineteenth century.

From The Brothers Karamazov, C. Garnett trans., Book V, Chap. 4 (New York: Modern Library, Inc., 1950).

"I must make you one confession," Ivan began. "I could never understand how one can love one's neighbors. It's just one's neighbors, to my mind, that one can't love, though one might love those at a distance. I once read somewhere of John the Merciful, a saint, that when a hungry, frozen beggar came to him, he took him into his bed, held him in his arms, and began breathing into his mouth, which was putrid and loathsome from some awful disease. I am convinced that he did that from 'self-laceration,' from the self-laceration of falsity, for the sake of the charity imposed by duty, as a penance laid on him. For any one to love a man, he must be hidden, for as soon as he shows his face, love is gone."

"Father Zossima has talked of that more than once," observed Alyosha, "he, too, said that the face of a man often hinders many people not practiced in love, from loving him. But yet there's a great deal of love in mankind, and almost Christlike love. I know that myself, Ivan."

"Well, I know nothing of it so far, and can't understand it, and the innumerable mass of mankind are with me there. The question is, whether that's due to men's bad qualities or whether it's inherent in their nature. To my thinking, Christ-like love for then is a miracle impossible on earth. He was God. But we are not gods. Suppose I, for instance, suffer intensely. Another can never know how much I suffer, because he is another and not I. And what's more, a man is rarely ready to admit another's suffering (as though it were a distinction). Why won't he admit it, do

you think? Because I smell unpleasant, because I have a stupid face, because I once trod on his foot. Besides there is suffering and suffering; degrading, humiliating suffering such as humbles me-hunger, for instance-my benefactor will perhaps allow me; but when you come to higher suffering-for an idea, for instance-he will very rarely admit that, perhaps because my face strikes him as not at all what he fancies a man should have who suffers for an idea. And so he deprives me instantly of his favor, and not at all from badness of heart. Beggars, especially genteel beggars, ought never to show themselves, but to ask for charity through the newspapers. One can love one's neighbors in the abstract, or even at a distance, but at close quarters it's almost impossible. If it were as on the stage, in the ballet, where if beggars come in they wear silken rags and tattered lace and beg for alms dancing gracefully, then one might like looking at them. But even then we should not love them. But enough of that. I simply wanted to show you my point of view. I meant to speak of the suffering of mankind generally, but we had better confine ourselves to the sufferings of the children. That reduces the scope of my argument to the tenth of what it would be. Still we'd better keep to the children, though it does weaken my case. But, in the first place, children can be loved even at close quarters, even when they are dirty, even when they are ugly (I fancy, though, children never are ugly). The second reason why I won't speak of grownup people is that, besides being disgusting and unworthy of love, they have a compensation-they've eaten the apple and know good and evil, and they have become 'like god.' They go on eating it still. But the children haven't eaten anything, and are so far innocent. Are you fond of children, Alyosha? I know you are, and you will understand why I prefer to speak of them. If they, too, suffer horribly on earth, they must suffer for their fathers' sins, they must be punished for their fathers' sins, they must be punished for their fathers, who have eaten the apple; but that reasoning is of the other world and is incomprehensible for the heart of man here on earth. The innocent must not suffer for another's sins, and especially such innocents! You may be surprised at me, Alyosha, but I am awfully fond of children, too. And observe, cruel people, the violent, the rapacious, the Karamazovs are sometimes very fond of children. Children while they are quite little-up to seven, for instance-are so remote from grownup people; they are different creatures, as it were, of a different species. I knew a criminal in prison who had, in the course of his career as a burglar, murdered whole families, including several children. But when he was in prison, he had a strange affection for them. He spent all his time at his window, watching the children playing in the prison yard. He trained one little boy to come up to his window and made great friends with him ... You don't know why I am telling you all this, Alyosha? My head aches and I am sad."

"You speak with a strange air," observed Alyosha uneasily, "as though you were not quite yourself."

"By the way, a Bulgarian I met lately in Moscow," Ivan went on, seeming not to hear his brother's words, "told me about the crimes committed by Turks and Circassians in all parts of Bulgaria through fear of a general rising of the Slavs. They burn villages, murder, outrage women and children, they nail their prisoners by the ears to the fences, leave them so till morning, and in the morning they hang them-all sorts of things you can't imagine. People talk sometimes of bestial cruelty, but that's a great injustice and insult to the beasts; a beast can never be so cruel as a man, so artistically cruel. The tiger only tears and gnaws, that's all he can do. He would never think of nailing people by the ears, even if he were able to do it. These Turks took a pleasure in torturing children, too; cutting the unborn child from the mother's womb, and tossing babies up in the air and catching them on the points of their bayonets before their mother's eyes. Doing it before the mother's eyes was what gave zest to the amusement. Here is another scene

that I thought very interesting. Imagine a trembling mother with her baby in her arms, a circle of invading Turks around her. They've planned a diversion; they per the baby, laugh to make it laugh. They succeed, the baby laughs. At that moment a Turk points a pistol four inches from the baby's face. The baby laughs with glee, holds out its little hands to the pistol, and he pulls the trigger in the baby's face and blows out its brains. Artistic, wasn't it? By the way, Turks are particularly fond of sweet things, they say."

"Brother, what are you driving at?" asked Alyosha.

"I think if the devil doesn't exist, but man has created him, he has created him in his own image and likeness."

"Just as he did God, then?" observed Alyosha. "It's wonderful how you can turn words,' as Polonius says in Hamlet," laughed Ivan. "You turn my words against me. Well, I am glad. Yours must be a fine God, if man created Him in His image and likeness. You asked just now what I was driving at. You see, I am fond of collecting certain facts, and, would you believe, I even copy anecdotes of a certain sort from newspapers and books, and I've already got a fine collection. The Turks, of course, have gone into it, but they are foreigners. I have specimens from home that are even better than the Turks. You know we prefer beatingrods and scourges-that's our national institution. Nailing ears is unthinkable for us, for we are, after all, Europeans. But the rod and scourge we have always with us and they cannot be taken from us. Abroad now they scarcely do any beating. Manners are more humane, or laws have been passed, so that they don't dare to flog men now. But they make up for it in another way just as national as ours. And so national that it would be practically impossible among us, though I believe we are being inoculated with it, since the religious movement began in our aristocracy. I have a charming pamphlet, translated from the French, describing how, quite recently, five years ago, a murderer, Richard, was executed-a young man, I believe, of three and twenty, who repented and was converted to the Christian faith at the very scaffold. This Richard was an illegitimate child who was given as a child of six by his parents to some shepherds on the Swiss mountains. They brought him up to work for them. He grew up like a little wild beast among them. The shepherds taught him nothing, and scarcely fed or clothed him, but sent him out at seven to herd the flock in cold and wet, and no one hesitated or scrupled to treat him so. Quite the contrary, they thought they had every right, for Richard had been given to them as a chattel, and they did not even see the necessity of feeding him. Richard himself describes how in those years, like the Prodigal Son in the Gospel, he longed to eat of the mash given to the pigs, which were fattened for sale. But they wouldn't even give him that, and beat him when he stole from

the pigs. And that was how he spent all his childhood and his youth, till he grew up and was strong enough to go away and be a thief. The savage began to earn his living as a day laborer in Geneva. He drank what he earned, he lived like a brute, and finished by killing and robbing an old man. He was caught, tried, and condemned to death. They are no sentimentalists there. And in prison he was immediately surrounded by pastors, members of Christian brotherhoods, philanthropic ladies, and the like. They taught him to read and write in prison, and expounded the Gospel to him. They exhorted him, worked upon him, drummed at him incessantly, till at last he confessed his crime. He was converted. He wrote to the court himself that he was a monster, but that in the end God had vouchsafed him light and shown grace. All Geneva was in excitement about him-all philanthropic and religious Geneva. All the aristocratic and well-bred society of the town rushed to the prison, kissed Richard and embraced him: 'You are our brother, you have found grace.' And Richard does nothing but weep with emotion, 'Yes, I've found grace! All my youth and childhood I was glad to have pigs' food, but now even I have

found grace. I am dying in the Lord.' 'Yes, Richard, die in the Lord; you have shed blood and must die. Though it's not your fault that you knew not the Lord, when you coveted the pigs' food and were beaten for stealing it (which was very wrong of you, for stealing is forbidden); but you've shed blood and you must die.' And on the last day, Richard, perfectly limp, did nothing but cry and repeat every minute: 'This is my happiest day. I am going to the Lord.' 'Yes,' cry the pastors and the judges and philanthropic ladies. 'This is the happiest day of your life, for you are going to the Lord!' They all work or drive to the scaffold in procession behind the prison van. At the scaffold they call to Richard: 'Die, brother, die in the Lord, for even thou hast found grace!' And so, covered with his brothers' kisses, Richard is dragged onto the scaffold, and led to the guillotine. And they chopped off his head in brotherly fashion, because he had found grace. Yes, that's characteristic. That pamphlet is translated into Russian by some Russian philanthropists of aristocratic rank and evangelical aspirations, and has been distributed gratis for the enlightenment of the people. The case of Richard is interesting because it's national. Though to us it's absurd to cut off a man's head, because he has become our brother and has found grace, yet we have our own specialty, which is all but worse. Our historical pastime is the direct satisfaction of inflicting pain. There are lines in Nekrassov describing how a peasant lashes a horse on the eyes, 'on its meek eyes'; everyone must have seen it. It's peculiarly Russian. He describes how a feeble little nag had foundered under too heavy a load and cannot move. The peasant beats it, beats it savagely, beats it at last not knowing what he is doing in the intoxication of cruelty, thrashes it mercilessly over and over again. 'However weak you are, you must pull, if you die for it.' The nag strains, and he begins lashing the poor defenseless creature on its weeping, on its 'meek eyes.' The frantic beast tugs and draws the load, trembling all over, gasping for breath, moving sideways, with a sort of unnatural spasmodic action-it's awful in Nekrassov. But that's only a horse, and God has given horses to be beaten. So the Tatars have taught us, and they left us the knout as a remembrance of it. But men, too, can be beaten. A well-educated, cultured gentleman and his wife beat their own child with a birchrod, a girl of seven. I have an exact account of it. The papa was glad that the birch was covered with twigs. 'It stings more,' said he, and so he began stinging his daughter. I know for a fact there are people who at every blow are worked up to sensuality, to literal sensuality, which increases progressively at every blow they inflict. They beat for a minute, for five minutes, for ten minutes, more often and more savagely. The child screams. At last the child cannot scream, it gasps, 'Daddy! daddy!' By some diabolical unseemly chance the case was brought into court. A counsel was engaged. The Russian people have long called a barrister 'a conscience for hire.' The counsel protests in his client's defense. 'It's such a simple thing,' he says, 'an everyday domestic event. A father corrects his child. To our shame be it said, it is brought into court.' The jury, convinced by him, gives a favorable verdict. The public roars with delight that the torturer is acquitted. Ali, pity I wasn't there! I would have proposed to raise a subscription in his honor! ... Charming pictures.

"But I've still better things about children. I've collected a great, great deal about Russian children, Alyosha. There was a little girl of five who was hated by her father and mother, 'most worthy and respectable people, of good education and breeding.' You see, I must repeat again, it is a peculiar characteristic of many people, this love of torturing children, and children only. To all other types of humanity these torturers behave mildly and benevolently like cultivated and humane Europeans; but they are very fond of tormenting children, even fond of children themselves in that sense. It's just their defenselessness that tempts the tormentor, just the angelic confidence of the child who has no refuge and no appeal that sets his vile blood on fire. In every

man, of course, a demon lies hidden the demon of rage, the demon of lustful heat at the screams of the tortured victim, the demon of lawlessness let off the chain, the demon of diseases that follow on vice, gout, kidney disease, and so on.

"This poor child of five was subjected to every possible torture by those cultivated parents. They beat her, thrashed her, kicked her for no reason till her body was one bruise. Then, they went to greater refinements of cruelty-shut her up all night in the cold and frost in a privy, and because she didn't ask to be taken up at night (as though a child of five sleeping its angelic, sound sleep could be trained to wake and ask), they smeared her face and filled her mouth with excrement, and it was her mother, her mother did this. And that mother could sleep, hearing the poor child's groans! Can you understand why a little creature, who can't even understand what's done to her, should beat her little aching heart with her tiny fist in the dark and the cold, and weep her meek unresentful tears to dear, kind God to protect her? Do you understand that, friend and brother, you pious and humble novice? Do you understand why this infamy must be and is permitted? Without it, I am told, man could not have existed on earth, for he could not have known good and evil. Why should he know that diabolical good and evil when it costs so much? Why, the whole world of knowledge is not worth that child's prayer to 'dear, kind God'! I say nothing of the sufferings of grown-up people, they have eaten the apple, damn them, and the devil take them all! But these little ones! I am making you suffer, Alyosha, you are not yourself. I'll leave off it if you like."

"Never mind. I want to suffer too," muttered Alyosha.

"One picture, only one more, because it's so curious, so characteristic, and I have only just read it in some collection of Russian antiquities. I've forgotten the name. I must look it up. It was in the darkest days of serfdom at the beginning of the century, and long live the Liberator of the People! There was in those days a general of aristocratic connections, the owner of great estates, one of those men-somewhat exceptional, I believe, even then-who, retiring from the service into a life of leisure, are convinced that they've earned absolute power over the lives of the subjects. There were such men then. So our general, settled on his property of two thousand souls, lives in pomp, and domineers over his poor neighbors as though they were dependents and buffoons. He has kennels of hundreds of hounds and nearly a hundred dog-boys-all mounted, and in uniform. One day a serf boy, a little child of eight, threw a stone in play and hurt the paw of the general's favorite hound. 'Why is my favorite dog lame?' He is told that the boy threw a stone that hurt the dog's paw. 'So you did it.' The general looked the child up and down. 'Take him.' He was taken-taken from his mother and kept shut up all night. Early that morning the general comes out on horseback, with the hounds, his dependents, dog-boys, and huntsmen, all mounted around him in full hunting parade. The servants are summoned for their edification, and in front of them all stands the mother of the child. The child is brought from the lockup. It's a gloomy, cold, foggy autumn day, a capital day for hunting. The general orders the child to be undressed; the child is stripped naked. He shivers, numb with terror, not daring to cry... 'Make him run,' commands the general. 'Run! run!' shout the dog-boys. The boy runs... 'At him!' yells the general, and he sets the whole pack of hounds on the child. The hounds catch him, and tear him to pieces before

his mother's eyes! ... I believe the general was afterwards declared incapable of administering his estates. Well-what did he deserve? To be shot? To be shot for the satisfaction of our moral feelings? Speak, Alyosha!"

"To be shot," murmured Alyosha, lifting his eyes to Ivan with a pale, twisted smile.

"Bravo!" cried Ivan delighted. "If even you say so ... You're a pretty monk! So there is a

little devil sitting in your heart. Alyosha Karamazov!"

"What I said was absurd, but-"

"That's just the point that `but'!" cried Ivan. "Let me tell you, novice, that the absurd is only too necessary on earth. The world stands on absurdities, and perhaps nothing would have come to pass in it without them. We know what we know!"

"What do you know?"

"I understand nothing," Ivan went on, as though in delirium. "I don't want to understand anything now. I want to stick to the fact. I made up my mind long ago not to understand. If I try to understand anything, I shall be false to the fact and I have determined to stick to the fact."

"Why are you trying me?" Alyosha cried, with sudden distress. "Will you say what you mean at last?"

"Of course, I will; that's what I've been leading up to. You are dear to me, I don't want to let you go, and I won't give you up to your Zossima [priest, Father]."

Ivan for a minute was silent, his face became all at once very sad.

"Listen! I took the case of children only to make my case clearer. Of the other tears of humanity with which the earth is soaked from its crust to its center, I will say nothing. I have narrowed my subject on purpose, I am a bug, and I recognize in all humility that I cannot understand why the world is arranged as it is. Men are themselves to blame, I suppose; they were given paradise, they wanted freedom, and stole fire from heaven, though they knew they would become unhappy, so there is no need to pity them. With my pitiful, earthly, Euclidean understanding, all I know is that there is suffering and that there are none guilty; that cause follows effect, simply and directly; that everything flows and finds its level-but that's only Euclidean nonsense, I know that, and I can't consent to live by it! What comfort is to me that there are none guilty and that cause follows effect simply and directly, and that I know it-I must have justice, or I will destroy myself. And not justice in some remote infinite time and space, but here on earth, and that I could see myself. I have believed in it. I want to see it, and if I am dead by then, let me rise again, for if it all happens without me, it will be too unfair. Surely I haven't suffered, simply that I, my crimes and my sufferings, may manure the soil of the future harmony for somebody else. I want to see with my own eyes the hind lie down with the lion and the victim rise up and embrace his murderer. I want to be there when everyone suddenly understands what it has all been for. All the religions of the world are built on this longing, and I am a believer. But there are the children, and what am I to do about them? That's a question I can't answer. For the hundredth time I repeat, there are numbers of questions, but I've only taken the children, because in their case what I mean is so unanswerably clear. Listen! If all must suffer to pay for the eternal harmony, what have children to do with it, tell me, please? It's beyond all comprehension why they should suffer, and why they should pay for the harmony. Why should they, too, furnish material to enrich the soil for the harmony of the future? I understand solidarity in sin among men. I understand solidarity in retribution, too; but there can be no such solidarity with children. And if it is really true that they must share responsibility for all their father's crimes, such a truth is not of this world and is beyond my comprehension. Some jester will say, perhaps, that the child would have grown up and have sinned, but you see he didn't grow up, he was torn to pieces by the dogs, at eight years old. Oh, Alyosha, I am not blaspheming! I understand, of course, what an upheaval of the universe it will be, when everything in heaven and earth blends in one hymn of praise and everything that lives and has lived cries aloud: `Thou art just, O Lord, for Thy ways are revealed.' When the mother embraces the fiend who threw her child to the dogs, and all three cry aloud with tears, `Thou art just, O Lord!' then, of course, the crown of knowledge will be

reached and all will be made clear. But what pulls me up here is that I can't accept that harmony. And while I am on earth, I make haste to take my own measures. You see, Alyosha, perhaps it really may happen that if I live to that moment, or rise again to see it, I, too, perhaps, may cry aloud with the rest, looking at the mother embracing the child's torturer, 'Thou are just, O Lord!' but I don't want to cry aloud then. While there is still time, I hasten to protect myself and so I renounce the higher harmony altogether. It's not worth the tears of that one tortured child who beat itself on the breast with its little fist and prayed in its stinking outhouse with an unexpiated tear to 'dear, kind God!' It's not worth it, because those tears are unatoned for. They must be atoned for, or there can be no harmony. But how? How are you going to atone for them? Is it possible? By their being avenged? But what do I care for avenging them? What do I care for a hell for oppressors? What good can hell do, since those children have already been tortured? And what becomes of harmony, if there is hell? I want to forgive. I want to embrace. I don't want more suffering. And if the sufferings of children go to swell the sum of sufferings which was necessary to pay for truth, then I protest that the truth is not worth such a price. I don't want the mother to embrace the oppressor who threw her son to the dogs! She dare not forgive him! Let her forgive him for herself, if she will, let her forgive the torturer for the immeasurable suffering of her mother's heart. But the sufferings of her tortured child she has no right to forgive; she dare not forgive the torturer, even if the child were to forgive him! And if that is so, if they dare not forgive, what becomes of harmony? Is there in the whole world a being who would have the right to forgive and could forgive? I don't want harmony. From love for humanity I don't want it. I would rather be left with the unavenged suffering. I would rather remain with my unavenged suffering and unsatisfied indignation, even if I were wrong. Besides, too high a price is asked for harmony; it's beyond our means to pay so much to enter on it. And so I hasten to give back my entrance ticket, and if I am an honest man I am bound to give it back as soon as possible. And that I am doing. It's not God that I don't accept, Alyosha, only I most respectfully return Him the ticket."

"That's rebellion," murmured Alyosha, looking down.

"Rebellion? I am sorry you call it that," said Ivan earnestly. "One can hardly live in rebellion, and I want to live. Tell me yourself, I challenge you answer. Imagine that you are creating a

fabric of human destiny with the object of making men happy in the end, giving them peace and rest at last, but that it was essential and inevitable to torture to death only one tiny creature that baby beating its breast with its fist, for instance-and to found that edifice on its unavenged tears, would you consent to be the architect on those conditions? Tell me, and tell the truth."

"No, I wouldn't consent," said Alyosha softly....

REASON AND FAITH

The Ethics of Belief

W. K. CLIFFORD

W. K. Clifford (1845-1879) was an English mathematician and philosopher.

From W. K. Clifford, *Lectures and Essays* (1879).

A shipowner was about to send to sea an emigrantship. He knew that she was old, and not over-well built at the first; that she had seen many seas and climes, and often had needed repairs. Doubts had been suggested to him that possibly she was not seaworthy. These doubts preyed upon his mind, and made him unhappy; he thought that perhaps he ought to have her thoroughly overhauled and refitted, even though this should put him to great expense. Before the ship sailed, however, he succeeded in overcoming these melancholy reflections. He said to himself that she had gone safely through so many voyages and weathered so many storms that it was idle to suppose she would not come safely home from this trip also. He would put his trust in Providence, which could hardly fail to protect all these unhappy families that were leaving their fatherland to seek for better times elsewhere. He would dismiss from his mind all ungenerous suspicions about the honesty of builders and contractors. In such ways he acquired a sincere and comfortable conviction that his vessel was thoroughly safe and seaworthy; he watched her departure with a light heart, and benevolent wishes for the success of the exiles in their strange new home that was to be; and he got his insurance money when she went down in mid-ocean and told no tales.

What shall we say of him? Surely this, that he was verily guilty of the death of those men. It is admitted that he did sincerely believe in the soundness of his ship; but the sincerity of his conviction can in no wise help him, because he had no right to believe on such evidence as was before him. He had acquired his belief not by honestly earning it in patient investigation, but by stifling his doubts. And although in the end he may have felt so sure about it that he could not think otherwise, yet inasmuch as he had knowingly and willingly worked himself into that frame of mind, he must be held responsible for it.

Let us alter the case a little, and suppose that the ship was not unsound after all; that she made her voyage safely, and many others after it. Will that diminish the guilt of her owner? Not one jot. When an action is once done, it is right or wrong for ever; no accidental failure of its good or evil fruits can possibly alter that. The man would not have been innocent, he would only have been not found out. The question of right or wrong has to do with the origin of his belief, not the matter of it; not what it was, but how he got it; not whether it turned out to be true or false, but whether he had a right to believe on such evidence as was before him.

There was once an island in which some of the inhabitants professed a religion teaching neither the doctrine of original sin nor that of eternal punishment. A suspicion got abroad that the professors of this religion had made use of unfair means to get their doctrines taught to children. They were accused of wresting the laws of their country in such a way as to remove children from the care of their natural and legal guardians; and even of stealing them away and keeping them concealed from their friends and relations. A certain number of men formed themselves into a society for the purpose of agitating the public about this matter. They published grave accusations against individual citizens of the highest position and character, and did all in their power to injure these citizens in the exercise of their professions. So great was the noise they made, that a Commission was appointed to investigate the facts; but after the Commission had carefully inquired into all the evidence that could be got, it appeared that the accused were innocent. Not only had they been accused on insufficient evidence, but the evidence of their innocence was such as the agitators might easily have obtained, if they had attempted a fair inquiry. After these disclosures the inhabitants of that country looked upon the members of the

agitating society, not only as persons whose judgment was to be distrusted, but also as no longer to be counted honourable men. For although they had sincerely and conscientiously believed in the charges they had made, yet they had no right to believe on such evidence as was before them. Their sincere convictions, instead of being honestly earned by patient inquiring, were stolen by listening to the voice of prejudice and passion.

Let us vary this case also, and suppose, other things remaining as before, that a still more accurate investigation proved the accused to have been really guilty. Would this make any difference in the guilt of the accusers? Clearly not; the question is not whether their belief was true or false, but whether they entertained it on wrong grounds. They would no doubt say, "Now you see that we were right after all; next time perhaps you will believe us." And they might be believed, but they would not thereby become honourable men. They would not be innocent, they would only be not found out. Every one of them, if he chose to examine himself in foro conscientiae, would know that he had acquired and nourished a belief, when he had no right to believe on such evidence as was before him; and therein he would know that he had done a wrong thing.

It may be said, however, that in both of these supposed cases it is not the belief which is judged to be wrong, but the action following upon it. The shipowner might say, "I am perfectly certain that my ship is sound, but still I feel it my duty to have her examined, before trusting the lives of so many people to her." And it might be said to the agitator, "However convinced you were of the justice of your cause and the truth of your convictions, you ought not to have made a public attack upon any man's character until you had examined the evidence on both sides with the utmost patience and care."

In the first place, let us admit that, so far as it goes, this view of the case is right and necessary; right, because even when a man's belief is so fixed that he cannot think otherwise, he still has a choice in regard to the action suggested by it, and so cannot escape the duty of investigating on the ground of the strength of his convictions; and necessary, because those who are not yet capable of controlling their feelings and thoughts must have a plain rule dealing with overt acts.

But this being premised as necessary, it becomes clear that it is not sufficient, and that our previous judgment is required to supplement it. For it is not possible so to sever the belief from the action it suggests as to condemn the one without condemning the other. No man holding a strong belief on one side of a question, or even wishing to hold a belief on one side, can investigate it with such fairness and completeness as if he were really in doubt and unbiased; so that the existence of a belief not founded on fair inquiry unfits a man for the performance of this necessary duty.

Nor is that truly a belief at all which has not some influence upon the actions of him who holds it. He who truly believes that which prompts him to an action has looked upon the action to lust after it, he has committed it already in his heart. If a belief is not realized immediately in open deeds, it is stored up for the guidance of the future. It goes to make a part of that aggregate of beliefs which is the link between sensation and action at every moment of all our lives, and which is so organized and compacted together that no part of it can be isolated from the rest, but every new addition modifies the structure of the whole. No real belief, however trifling and fragmentary it may seem, is ever truly insignificant; it prepares us to receive more of its like, confirms those which resembled it before, and weakens others; and so gradually it lays a stealthy train in our inmost thoughts, which may someday explode into overt action, and leave its stamp upon our character for ever.

And no one man's belief is in any case a private matter which concerns himself alone. Our lives are guided by that general conception of the course of things which has been created by society for social purposes. Our words, our phrases, our forms and processes and modes of thought, are common property, fashioned and perfected from age to age; an heirloom which every succeeding generation inherits as a precious deposit and a sacred trust to be handed on to the next one, not unchanged but enlarged and purified, with some clear marks of its proper handiwork. Into this, for good or ill, is woven every belief of every man who has speech of his fellows. An awful privilege, and an awful responsibility, that we should help to create the world in which posterity will live.

In the two supposed cases which have been considered, it has been judged wrong to believe on insufficient evidence, or to nourish belief by suppressing doubts and avoiding investigation. The reason of this judgment is not far to seek; it is that in both these cases the belief held by one man was of great importance to other men. But forasmuch as no belief held by one man, however seemingly trivial the belief, and however obscure the believer, is ever actually insignificant or without its effect on the fate of mankind, we have no choice but to extend our judgment to all cases of belief whatever. Belief, that sacred faculty which prompts the decisions of our will, and knits into harmonious working all the compacted energies of our being, is ours not for ourselves, but for humanity. It is rightly used on truths which have been established by long experience and waiting toil, and which have stood in the fierce light of free and fearless questioning. Then it helps to bind men together, and to strengthen and direct their common action. It is desecrated when given to unproved and unquestioned statements, for the solace and private pleasure of the believer; to add a tinsel splendour to the plain straight road of our life and display a bright mirage beyond it; or even to drown the common sorrows of our kind by a selfdeception which allows them not only to cast down, but also to degrade us. Whoso would deserve well of his fellows in this matter will guard the purity of his belief with a very fanaticism of jealous care, lest at any time it should rest on an unworthy object, and catch a stain which can never be wiped away.

It is not only the leader of men, statesman, philosopher, or poet, that owes this bounden duty to mankind. Every rustic who delivers in the village alehouse his slow, infrequent sentences, may help to kill or keep alive the fatal superstitions which clog his race. Every hardworked wife of an artisan may transmit to her children beliefs which shall knit society together, or rend it in pieces. No simplicity of mind, no obscurity of station, can escape the universal duty of questioning all that we believe.

It is true that this duty is a hard one, and the doubt which comes out of it is often a very bitter thing. It leaves us bare and powerless where we thought that we were safe and strong. To know all about anything is to know how to deal with it under all circumstances. We feel much happier and more secure when we think we know precisely what to do, no matter what happens, than when we have lost our way and do not know where to turn. And if we have supposed ourselves to know all about anything, and to be capable of doing what is fit in regard to it, we naturally do not like to find that we are really ignorant and powerless, that we have to begin again at the beginning, and try to learn what the thing is and how it is to be dealt with-if indeed anything can be learnt about it. It is the sense of power attached to a sense of knowledge that makes men desirous of believing, and afraid of doubting.

This sense of power is the highest and best of pleasures when the belief on which it is founded is a true belief, and has been fairly earned by investigation. For then we may justly feel that it is common property, and hold good for others as well as for ourselves. Then we may be

glad, not that I have learned secrets by which I am safer and stronger, but that we men have got mastery over more of the world; and we shall be strong, not for ourselves, but in the name of Man and in his strength. But if the belief has been accepted on insufficient evidence, the pleasure is a stolen one. Not only does it deceive ourselves by giving us a sense of power which we do not really possess, but it is sinful, because it is stolen in defiance of our duty to mankind. That duty is to guard ourselves from such beliefs as from a pestilence, which may shortly master our own body and then spread to the rest of the town. What would be thought of one who, for the sake of a sweet fruit, should deliberately run the risk of bringing a plague upon his family and his neighbours?

And, as in other such cases, it is not the risk only which has to be considered; for a bad action is always bad at the time when it is done, no matter what happens afterwards. Every time we let ourselves believe for unworthy reasons, we weaken our powers of self-control, of doubting, of judicially and fairly weighing evidence. We all suffer severely enough from the maintenance and support of false beliefs and the fatally wrong actions which they lead to, and the evil born when one such belief is entertained is great and wide. But a greater and wider evil arises when the credulous character is maintained and supported, when a habit of believing for unworthy reasons is fostered and made permanent. If I steal money from any person, there may be no harm done by the mere transfer of possession; he may not feel the loss, or it may prevent him from using the money badly. But I cannot help doing this great wrong towards Man, that I make myself dishonest. What hurts society is not that it should lose its property, but that it should become a den of thieves, for then it must cease to be society. This is why we ought not to do evil, that good may come; for at any rate this great evil has come, that we have done evil and are made wicked thereby. In like manner, if I let myself believe anything on insufficient evidence, there may be no great harm done by the mere belief; it may be true after all, or I may never have occasion to exhibit it in outward acts. But I cannot help doing this great wrong towards Man, that I make myself credulous. The danger to society is not merely that it should believe wrong things, though that is great enough; but that it should become credulous, and lose the habit of testing things and inquiring into them; for then it must sink back into savagery.

The harm which is done by credulity in a man is not confined to the fostering of a credulous character in others, and consequent support of false beliefs. Habitual want of care about what I believe leads to habitual want of care in others about the truth of what is told to me. Men speak the truth to one another when each reveres the truth in his own mind and in the other's mind; but how shall my friend revere the truth in my mind when I myself am careless about it, when I believe things because I want to believe them, and because they are comforting and pleasant? Will he not learn to cry, "Peace," to me, when there is no peace? By such a course I shall surround myself with a thick atmosphere of falsehood and fraud, and in that I must live. It may matter little to me, in my cloudcastle of sweet illusions and darling lies; but it matters much to Man that I have made my neighbours ready to deceive. The credulous man is father to the liar and the cheat; he lives in the bosom of this his family, and it is no marvel if he should become even as they are. So closely are our duties knit together, that whoso shall keep the whole law, and yet offend in one point, he is guilty of all.

To sum up: it is wrong always, everywhere, and for anyone, to believe anything upon insufficient evidence.

If a man, holding a belief which he was taught in childhood or persuaded of afterwards, keeps down and pushes away any doubts which arise about it in his mind, purposely avoids the reading of books and the company of men that call in question or discuss it, and regards

as impious those questions which cannot easily be asked without disturbing it-the life of that man is one long sin against mankind.

If this judgment seems harsh when applied to those simple souls who have never known better, who have been brought up from the cradle with a horror of doubt, and taught that their eternal welfare depends on what they believe, then it leads to the very serious question, Who bath made Israel to sin?

It may be permitted me to fortify this judgment with the sentence of Milton-

A man may be a heretic in the truth; and if he believe things only because his pastor says so, or the assembly so determine, without knowing other reason, though his belief be true, yet the very truth he holds becomes his heresy.

And with this famous aphorism of Coleridge2-

He who begins by loving Christianity better than Truth, will proceed by loving his own sect or Church better than Christianity, and end in loving himself better than all.

Inquiry into the evidence of a doctrine is not to be made once for all, and then taken as finally settled.

It is never lawful to stifle a doubt; for either it can be honestly answered by means of the inquiry already made, or else it proves that the inquiry was not complete.

"But," says one, "I am a busy man; I have no time for the long course of study which would be necessary to make me in any degree a competent judge of certain questions, or even able to understand the nature of the arguments." Then he should have no time to believe.

NOTES

1. Areopagitica.

2. Aids to Reflections.

The Will to Believe

WILLIAM JAMES

William James (1842-1910) spent his career teaching philosophy and the new science of psychology at Harvard.

This essay, originally an address delivered before the Philosophical Clubs of Yale and Brown Universities, was first published in 1896.

In the recently published *Life* by Leslie Stephen of his brother, Fitz-James, there is an account of a school to which the latter went when he was a boy. The teacher, a certain Mr. Guest, used to converse with his pupils in this wise, "Gurney, what is the difference between justification and sanctification?-Stephen, prove the omnipotence of God!" etc. In the midst of our Harvard freethinking and indifference we are prone to imagine that here at your good old orthodox College conversation continues to be somewhat upon this order; and to show you that we at Harvard have not lost all interest in these vital subjects, I have brought with me tonight something like a sermon on justification by faith to read to you, -I mean an essay in justification of faith, a defence of our right to adopt a believing attitude in religious matters, in spite of the fact that our merely logical intellect may not have been coerced. "The Will to Believe," accordingly, is the title of my paper.

I have long defended to my own students the lawfulness of voluntarily adopted faith; but as soon as they have got well imbued with the logical spirit, they have as a rule refused to admit my contention to be lawful philosophically, even though in point of fact they were personally all the time chockfull of some faith or other themselves. I am all the while, however, so profoundly convinced that my own position is correct, that your invitation has seemed to me a good occasion to make my statements more clear. Perhaps your minds will be more open than those with which I have hitherto had to deal. I will be as little technical as I can, though I must begin by setting up some technical distinctions that will help us in the end.

Let us give the name of hypothesis to anything that may be proposed to our belief; and just as the electricians speak of live and dead wires, let us speak of any hypothesis as either live or dead. A live hypothesis is one which appeals as a real possibility to him to whom it is proposed. If I ask you to believe in the Mahdi, the notion makes no electric connection with your nature—it refuses to scintillate with any credibility at all. As an hypothesis it is completely dead. To an Arab, however (even if he be not one of the Mahdi's followers), the hypothesis is among the mind's possibilities: It is alive. This shows that deadness and liveness in an hypothesis are not intrinsic properties, but relations to the individual thinker. They are measured by his willingness to act. The maximum of liveness in an hypothesis means willingness to act irrevocably. Practically, that means belief; but there is some believing tendency wherever there is willingness to act at all.

Next, let us call the decision between two hypotheses an option. Options may be of several kinds. They may be first, living or dead; secondly, forced or avoidable; thirdly, momentous or trivial; and for our purposes we may call an option a genuine option when it is of the forced, living, and momentous kind.

1. A living option is one in which both hypotheses are live ones. If I say to you: "Be a theosophist or be a Mohammedan," it is probably a dead option, because for you neither hypothesis is likely to be alive. But if I say: "Be an agnostic or be a Christian," it is otherwise; trained as you are, each hypothesis makes some appeal, however small, to your belief.

2. Next, if I say to you: "Choose between going out with your umbrella or without it," I do not offer you a genuine option, for it is not forced. You can easily avoid it by not going out at all. Similarly, if I say, "Either love me or hate me," "Either call my theory true or call it false," your option is avoidable. You may remain indifferent to me, neither loving nor hating, and you may decline to offer any judgment as to my theory. But if I say, "Either accept this truth or go without it," I put on you a forced option, for there is no standing place outside of the alternative. Every dilemma based on a complete logical disjunction, with no possibility of not choosing, is an option of this forced kind.

3. Finally, if I were Dr. Nansen and proposed to you to join my North Pole expedition, your option would be momentous; for this would probably be your only similar opportunity, and your choice now would either exclude you from the North Pole sort of immortality altogether or put at least the chance of it into your hands. He who refuses to embrace a unique opportunity loses the prize as surely as if he tried and failed. Per contra, the option is trivial when the opportunity is not unique, when the stake is insignificant, or when the decision is reversible if it later prove unwise. Such trivial options abound in the scientific life. A chemist finds an hypothesis live enough to spend a year in its verification: he believes in it to that extent. But if his experiments prove inconclusive either way, he is quit for his loss of time, no vital harm being done.

It will facilitate our discussion if we keep all these distinctions well in mind.

The next matter to consider is the actual psychology of human opinion. When we look at certain facts, it seems as if our passional and volitional nature lay at the root of all our convictions. When we look at others, it seems as if they could do nothing when the intellect had once said its say. Let us take the latter facts up first.

Does it not seem preposterous on the very face of it to talk of our opinions being modifiable at will? Can our will either help or hinder our intellect in its perceptions of truth? Can we, by just willing it, believe that Abraham Lincoln's existence is a myth, and that the portraits of him in McClure's Magazine are all of some one else? Can we, by any effort of our will, or by any strength of wish that it were true, believe ourselves well and about when we are roaring with rheumatism in bed, or feel certain that the sum of the two one-dollar bills in our pocket must be a hundred dollars? We can say any of these things, but we are absolutely impotent to believe them; and of just such things is the whole fabric of the truths that we do believe in made up-matters of fact, immediate or remote, as Hume said, and relations between ideas, which are either there or not there for us if we see them so, and which if not there cannot be put there by any action of our own.

In Pascal's *Thoughts* there is a celebrated passage known in literature as Pascal's wager. In it he tries to force us into Christianity by reasoning as if our concern with truth resembled our concern with the stakes in a game of chance. Translated freely his words are these: You must either believe or not believe that God is-which will you do? Your human reason cannot say. A game is going on between you and the nature of things which at the day of judgment will bring out either heads or tails. Weigh what your gains and your losses would be if you should stake all you have on heads, or God's existence; if you win in such case, you gain eternal beatitude; if you lose, you lose nothing at all. If there were an infinity of chances, and only one for God in this wager, still you ought to stake your all on God; for though you surely risk a finite loss by this procedure, any finite loss is reasonable, even a certain one is reasonable, if there is but the possibility of infinite gain. Go, then, and take holy water, and have masses said; belief will come and stupefy your scruples.... Why should you not? At bottom, what have you to lose,'

You probably feel that when religious faith expresses itself thus, in the language of the gamingtable, it is put to its last trumps. Surely Pascal's own personal belief in masses and holy water had far other springs; and this celebrated page of his is but an argument for others, a last desperate snatch at a weapon against the hardness of the unbelieving heart. We feel that a faith in masses and holy water adopted wilfully after such a mechanical calculation would lack the inner soul of faith's reality; and if we were ourselves in the place of the Deity, we should probably take particular pleasure in cutting off believers of this pattern from their infinite reward. It is evident that unless there be some preexisting tendency to believe in masses and holy water, the option offered to the will by Pascal is not a living option. Certainly no Turk ever took to masses and holy water on its account; and even to us Protestants these means of salvation seem such foregone impossibilities that Pascal's logic, invoked for them specifically, leaves us unmoved. As well might the Mahdi write to us, saying, "I am the Expected One whom God has created in his effulgence. You shall be infinitely happy if you confess me; otherwise you shall be cut off from the light of the sun. Weigh, then, your infinite gain if I am genuine against your finite sacrifice if I am not!" His logic would be that of Pascal; but he would vainly use it on us, for the hypothesis he offers us is dead. No tendency to act on it exists in us to any degree.

The talk of believing by our volition seems, then, from one point of view, simply silly. From another point of view it is worse than silly, it is vile. When one turns to the magnificent

edifice of the physical sciences, and sees how it was reared; what thousands of disinterested moral lives of men lie buried in its mere foundations; what patience and postponement, what choking down of preference, what submission to the icy laws of outer fact are wrought into its very stones and mortar; how absolutely impersonal it stands in its vast how besotted and contemptible seems every little sentimentalist who comes blowing his voluntary smokewreaths, and pretending to decide things from out of his private dream! Can we wonder if those bred in the rugged and manly school of science should feel like spewing such subjectivism out of their mouths? The whole system of loyalties which grow up in the schools of science go dead against its toleration; so that it is only natural that those who have caught the scientific fever

should pass over to the opposite extreme, and write sometimes as if the incorruptibly truthful intellect ought positively to prefer bitterness and unacceptableness to the heart in its cup.

It fortifies my soul to know That though I perish, Truth is so

sings Clough, while Huxley exclaims: "My only consolation lies in the reflection that, however bad our posterity may become, so far as they hold by the plain rule of not pretending to believe what they have no reason to believe, because it may be to their advantage so to pretend [the word 'pretend' is surely here redundant], they will not have reached the lowest depth of immorality." And that delicious enfant terrible Clifford writes: "Belief is desecrated when given to unproved and unquestioned statements for the solace and private pleasure of the believer... Whoso would deserve well of his fellows in this matter will guard the purity of his belief with a very fanaticism of jealous care, lest at any time it should rest on an unworthy object, and catch a stain which can never be wiped away.... If [a] belief has been accepted on insufficient evidence [even though the belief be true, as Clifford on the same page explains] the pleasure is a stolen one.... It is sinful because it is stolen in defiance of our duty to mankind. That duty is to guard ourselves from such beliefs as from a pestilence which may shortly master our own body and then spread to the rest of the town.... It is wrong always, everywhere, and for every one, to believe anything upon insufficient evidence."

III

All this strikes one as healthy, even when expressed, as by Clifford, with somewhat too much of robustious pathos in the voice. Free will and simple wishing do seem, in the matter of our credences, to be only fifth wheels to the coach. Yet if any one should thereupon assume that intellectual insight is what remains after wish and will and sentimental preference have taken wing, or that pure reason is what then settles our opinions, he would fly quite as directly in the teeth of the facts.

It is only our already dead hypotheses that our willing nature is unable to bring to life again. But what has made them dead for us is for the most part a previous action of our willing nature of an antagonistic kind. When I say "willing nature," I do not mean only such deliberate volitions as may have set up habits of belief that we cannot now escape from—I mean all such factors of belief as fear and hope, prejudice and passion, imitation and partisanship, the circumpressure of our caste and set. As a matter of fact we find ourselves believing, we hardly know how or why. Mr. Balfour gives the name of "authority" to all those influences, born of the intellectual climate, that make hypotheses possible or impossible for us, alive or dead. Here in this room, we all of us believe in molecules and the conservation of energy, in democracy and necessary progress, in Protestant Christianity and the duty of fighting for "the doctrine of the immortal Monroe," all for no reasons worthy of the name. We see into these matters with no more inner clearness, and probably with much less, than any disbeliever in them might possess. His unconventionality would probably have some grounds to show for its conclusions; but for us,

not insight, but the prestige of the opinions, is what makes the spark shoot from them and light up our sleeping magazines of faith. Our reason is quite satisfied, in nine hundred and ninety-nine cases out of every thousand of us, if it can find a few arguments that will do to recite in case our credulity is criticized by some one else. Our faith is faith in some one else's faith, and in the greatest matters this is the most the case....

Evidently, then, our non-intellectual nature does influence our convictions. There are passionate tendencies and volitions which run before and others which come after belief, and it is only the latter that are too late for the fair; and they are not too late when the previous passionate work has been already in their own direction. Pascal's argument, instead of being powerless, then seems a regular clincher, and is the last stroke needed to make our faith in masses and holy water complete. The state of things is evidently far from simple; and pure insight and logic, whatever they might do ideally, are not the only things that really do produce our creeds.

IV

Our next duty, having recognized this mixed-up state of affairs, is to ask whether it be simply reprehensible and pathological, or whether, on the contrary, we must treat it as a normal element in making up our minds. The thesis I defend is, briefly stated, this: Our passionate nature not only lawfully may, but must, decide an option between propositions, whenever it is a genuine option that cannot by its nature be decided on intellectual grounds; for to say, under such circumstances, "Do not decide, but leave the question open," is itself a passionate decision—just like deciding yes or no—and is attended with the same risk of losing the truth....

VII

One more point, small but important, and our preliminaries are done. There are two ways of looking at our duty in the matter of opinion—ways entirely different, and yet ways about whose difference the theory of knowledge seems hitherto to have shown very little concern. We must know the truth; and we must avoid error—these are our first and great commandments as would-be knowers; but they are not two ways of stating an identical commandment, they are two separable laws. Although it may indeed happen that when we believe the truth A, we escape as an incidental consequence from believing the falsehood B, it hardly ever happens that by merely disbelieving B we necessarily believe A. We may in escaping B fall into believing other falsehoods, C or D, just as bad as B; or we may escape B by not believing anything at all, not

Believe truth! Shun error! these, we see, are two materially different laws; and by choosing between them we may end by coloring differently our whole intellectual life. We may regard the chase for truth as paramount, and the avoidance of error as secondary; or we may, on the other hand, treat the avoidance of error as more imperative, and let truth take its chance. Clifford, in the instructive passage which I have quoted, exhorts us to the latter course. Believe nothing, he tells us, keep your mind in suspense forever, rather than by closing it on insufficient evidence incur the awful risk of believing lies. You, on the other hand, may think that the risk of being in error is a very small matter when compared with the blessings of real knowledge, and be ready to be duped many times in your investigation rather than postpone indefinitely the chance of guessing true. I myself find it impossible to go with Clifford. We must remember that these feelings of our duty about either truth or error are in any case only expressions of our passionate life. Biologically considered, our minds are as ready to grind out falsehood as veracity, and he who says, "Better go without belief forever than believe a lie!" merely shows his own preponderant private horror of becoming a dupe. He may be critical of many of his desires and fears, but this fear he slavishly obeys. He cannot imagine any one questioning its binding force. For my own part, I have also a horror of being duped; but I can believe that worse things than

being duped may happen to a man in this world: so Clifford's exhortation has to my ears a thoroughly fantastic sound. It is like a general informing his soldiers that it is better to keep out of battle forever than to risk a single wound. Not so are victories either over enemies or over nature gained. Our errors are surely not such awfully solemn things. In a world where we are so certain to incur them in spite of all our caution, a certain lightness of heart seems healthier than this excessive nervousness on their behalf. At any rate, it seems the fittest thing for the empiricist philosopher.

VIII

And now, after all this introduction, let us go straight at our question. I have said, and now repeat it, that not only as a matter of fact do we find our passional nature influencing us in our opinions, but that there are some options between opinions in which this influence must be regarded both as an inevitable and as a lawful determinant of our choice.

I fear here that some of you my hearers will begin to scent danger, and lend an inhospitable ear. Two first steps of passion you have indeed had to admit as necessary—we must think so as to avoid dupery, and we must think so as to gain truth; but the surest path to those ideal

consummations, you will probably consider, is from now onwards to take no further passional step.

Well, of course, I agree as far as the facts will allow. Wherever the option between losing truth and gaining it is not momentous, we can throw the chance of gaining truth away, and at any rate save ourselves from any chance of believing falsehood, by not making up our minds at all till objective evidence has come. In scientific questions, this is almost always the case; and even in human affairs in general, the need of acting is seldom so urgent that a false belief to act on is better than no belief at all. Law courts, indeed, have to decide on the best evidence attainable for the moment, because a judge's duty is to make law as well as to ascertain it, and (as a learned judge once said to me) few cases are worth spending much time over; the great thing is to have them decided on any acceptable principle, and got out of the way. But in our dealings with objective nature we obviously are recorders, not makers, of the truth; and decisions for the mere sake of deciding promptly and getting on to the next business would be wholly out of place. Throughout the breadth of physical nature facts are what they are quite independently of us, and seldom is there any such hurry about them that the risks of being duped by believing a premature theory need be faced. The questions here are always trivial options, the hypotheses are hardly living (at any rate not living for us spectators), the choice between believing truth or falsehood is seldom forced. The attitude of sceptical balance is therefore the absolutely wise one if we would escape mistakes. What difference, indeed, does it make to most of us whether we have or have not a theory of the Rontgen rays, whether we believe or not in mind-stuff, or have a conviction about the causality of conscious states? It makes no difference. Such options are not forced on us. On every account it is better not to make them, but still keep weighing reasons pro et contra with an indifferent hand.

I speak, of course, here of the purely judging mind. For purposes of discovery such indifference is to be less highly recommended, and science would be far less advanced than she is if the passionate desires of individuals to get their own faiths confirmed had been kept out of the game. See for example the sagacity which Spencer and Weismann now display. On the other hand, if you want an absolute duffer in an investigation, you must, after all, take the man who has no interest whatever in its results: he is the warranted incapable, the positive fool. The most useful investigator, because the most sensitive observer, is always he whose eager interest in one

side of the question is balanced by an equally keen nervousness lest he become deceived.' Science has organized this nervousness into a regular technique, her so-called method of verification; and she has fallen so deeply in love with the method that one may even say she has ceased to care for truth by itself at all. It is only truth as technically verified that interests her. The truth of truths might come in merely affirmative form, and she would decline to touch it. Such truth as that, she might repeat with Clifford, would be stolen in defiance of her duty to mankind. Human passions, however, are stronger than technical rules. "Le coeur a ses raisons," as Pascal says, "que la raison ne connaît pas";² and however indifferent to all but the bare rules of the game the umpire, the abstract intellect, may be, the concrete players who furnish him the materials to judge of are usually, each one of them, in love with some pet "live hypothesis" of his own. Let us agree, however, that wherever there is no forced option, the dispassionately judicial intellect with no pet hypothesis, saving us, as it does, from dupery at any rate, ought to be our ideal.

The question next arises: Are there not somewhere forced options in our speculative questions, and can we (as men who may be interested at least as much in positively gaining truth as in merely escaping dupery) always wait with impunity till the coercive evidence shall have arrived? It seems a priori improbable that the truth should be so nicely adjusted to our needs and powers as that. In the great boarding-house of nature, the cakes and the butter and the syrup seldom come out so even and leave the plates so clean. Indeed, we should view them with scientific suspicion if they did.

IX

Moral questions immediately present themselves as questions whose solution cannot wait for sensible proof. A moral question is a question not of what sensibly exists, but of what is good, or would be good if it did exist. Science can tell us what exists; but to compare the worths, both of what exists and of what does not exist, we must consult not science, but what Pascal calls our heart....

religious hypothesis? Science says things are; morality says some things are better than other things; and religion says essentially two things. Turn now from these wide questions of good to a certain class of questions of fact, questions concerning personal relations, states of mind between one man and another. Do you like me or not?-for example. Whether you do or not depends, in countless instances, on whether I meet you halfway, am willing to assume that you must like me, and show you trust and expectation. The previous faith on my part in your liking's existence is in such cases what makes your liking come. But if I stand aloof, and refuse to budge an inch until I have objective evidence, until you shall have done something apt, as the absolutists say, *ad extorquendum assensum meum*, ten to one your liking never comes. How many women's hearts are vanquished by the mere sanguine insistence of some man that they must love him! He will not consent to the hypothesis that they cannot. The desire for a certain kind of truth here brings about that special truth's existence; and so it is in innumerable cases of other sorts.... And where faith in a fact can help create the fact, that would be an insane logic which should say that faith running ahead of scientific evidence is the "lowest kind of immorality" into which a thinking being can fall. Yet such is the logic by which our scientific absolutists pretend to regulate our lives!

X

In truths dependent on our personal action, then, faith based on desire is certainly a lawful and possibly an indispensable thing.

But now, it will be said, these are all childish human cases, and have nothing to do with

great cosmical matters, like the question of religious faith. Let us then pass on to that. Religions differ so much in their accidents that in discussing the religious question we must make it very generic and broad. What then do we now mean by the

First, she says that the best things are the more eternal things, the overlapping things, the things in the universe that throw the last stone, so to speak, and say the final word. "Perfection is eternal"-this phrase of Charles Secrctan seems a good way of putting this first affirmation of religion, an affirmation which obviously cannot yet be verified scientifically at all.

The second affirmation of religion is that we are better off even now if we believe her first affirmation to be true.

Now, let us consider what the logical elements of this situation are in case the religious hypothesis in both its branches be really true. (Of course, we must admit that possibility at the outset. If we are to discuss the question at all, it must involve a living option. If for any of you religion be a hypothesis that cannot, by any living possibility, be true, then you need go no farther. I speak to the "saving remnant" alone.) So proceeding, we see, first, that religion offers itself as a momentous option. We are supposed to gain, even now, by our belief, and to lose by our non-belief, a certain vital good. Secondly, religion is a forced option, so far as that good goes. We cannot escape the issue by remaining sceptical and waiting for more light, because, although we do avoid error in that way if religion be untrue, we lose the good, if it be true, just as certainly as if we positively chose to disbelieve. It is as if a man should hesitate indefinitely to ask a certain woman to marry him because he was not perfectly sure that she would prove an angel after he brought her home. Would he not cut himself off from that particular angel-possibility as decisively as if he went and married some one else? Scepticism, then, is not avoidance of option; it is option of a certain particular kind of risk. Better risk loss of truth than chance of is your faith-vetoer's exact position. He is actively playing his stake as much as the believer is; he is backing the field against the religious hypothesis, just as the believer is backing the religious hypothesis against the field. To preach scepticism to us as a duty until "sufficient evidence" for religion be found, is tantamount therefore to telling us,

when in presence of the religious hypothesis, that to yield to our fear of its being error is wiser and better than to yield to our hope that it may be true. It is not intellect against all passion, then; it is only intellect with one passion laying down its law. And by what, forsooth, is the supreme wisdom of this passion warranted? Dupcry for dupery, what proof is there that dupery through hope is so much worse than dupery through fear? I, for one, can see no proof; and I simply refuse obedience to the scientist's command to imitate his kind of option, in a case where my own stake is important enough to give me the right to choose my own form of risk. If religion be true and the evidence for it be still insufficient, I do not wish, by putting your extinguisher upon my nature (which feels to me as if it had after all some business in this matter), to forfeit my sole chance in life of getting upon the winning side-that chance depending, of course, on my willingness to run the risk of acting as if my passional need of taking the world religiously might be prophetic and right.

All this is on the supposition that it really may be prophetic and right, and that, even to us who are discussing the matter, religion is a live hypothesis which may be true. Now, to most of us religion comes in a still further way that makes a veto on our active faith even more illogical. The more perfect and more eternal aspect of the universe is represented in our religions as having personal form. The universe is no longer a mere It to us, but a Thou, if we are religious; and any relation that may be possible from person to person might be possible here. For instance, although in one sense we are passive portions of the universe, in another we show a curious

autonomy, as if we were small active centers on our own account. We feel, too, as if the appeal of religion to us were made to our own active goodwill, as if evidence might be forever withheld from us unless we met the hypothesis halfway to take a trivial illustration: just as a man who in a company of gentlemen made no advances, asked a warrant for every concession, and believed no one's word without proof, would cut himself off by such churlishness from all the social rewards that a more trusting spirit would earn—so here, one who should shut himself up in snarling logicality and try to make the gods extort his recognition willy-nilly, or not get it at all, might cut himself off forever from his only opportunity of making the gods' acquaintance. This feeling, forced on us we know not whence that by obstinately believing that there are gods (although not to do so would be so easy both for our logic and our life) we are doing the universe the deepest service we can, seems part of the living essence of the religious hypothesis. If the hypothesis were true in all its parts, including this one, then pure intellectualism, with its veto on our making willing advances, would be an absurdity; and some participation of our sympathetic nature would be logically required. I therefore, for one, cannot see my way to accepting the agnostic rules for truthseeking, or wilfully agree to keep my willing nature out of the game. I cannot do so for this plain reason, that a rule of thinking which would absolutely prevent me from acknowledging certain kinds of truth if those kinds of truth were really there, would be an irrational rule. That for me is the long and short of the formal logic of the situation, no matter what the kinds of truth might materially be.

I confess I do not see how this logic can be escaped. But sad experience makes me fear that some of you may still shrink from radically saying with me, in abstracto, that we have the right to believe at our own risk any hypothesis that is live enough to tempt our will. I suspect, however, that if this is so, it is because you have got away from the abstract logical point of view altogether, and are thinking (perhaps without realizing it) of some particular religious hypothesis which for you is dead. The freedom to "believe what we will" you apply to the case of some patent superstition; and the faith you think of is the faith defined by the schoolboy when he said, is when you believe something that you know ain't true." I can only repeat that this is misapprehension. In concreto, the freedom to believe can only cover living options which the intellect of the individual cannot by itself resolve; and living options never seem absurdities to him who has them to consider. When I look at the religious question as it really puts itself to concrete men, and when I think of all the possibilities which both practically and theoretically it involves,

then this command that we shall put a stopper on our heart, instincts, and courage, and waitacting of course meanwhile more or less as if religion were not true—till doomsday, or till such time as our intellect and senses working together may have raked in evidence enough—this command, I say, seems to me the queerest idol ever manufactured in the philosophic cave. Were we scholastic absolutists, there might be more excuse. If we had an infallible intellect with its objective certitudes, we might feel ourselves disloyal to such a perfect organ of knowledge in not trusting to it exclusively, in not waiting for its releasing word. But if we are empiricists, if we believe that no bell in us tolls to let us know for certain when truth is in our grasp, then it seems a piece of idle fantasticality to preach so solemnly our duty of waiting for the bell. Indeed we may wait if we will—I hope you do not think that I am denying that—but if we do so, we do so at our peril as much as if we believed. In either case we act, taking our life in our hands. No one of us ought to issue vetoes to the other, nor should we bandy words of abuse. We ought, on the contrary, delicately and profoundly to respect one another's mental freedom: then only shall we bring about the intellectual republic; then only shall we have that spirit of inner tolerance without

which all our outer tolerance is soulless, and which is empiricism's glory; then only shall we live and let live, in speculative as well as in practical things.

I began by a reference to Fitz-James Stephen; let me end by a quotation from him. "What do you think of yourself? What do you think of the world? ... These are questions with which all must deal as it seems good to them. They are riddles of the Sphinx, and in some way or other we must deal with them.... In all important transactions of life we have to take a leap in the dark.... If we decide to leave the riddles unanswered, that is a choice; if we waver in our answer, that, too, is a choice: but whatever choice we make, we make it at our peril. If a man chooses to turn his back altogether on God and the future, no one can prevent him; no one can show beyond reasonable doubt that he is mistaken. If a man thinks otherwise and acts as he thinks, I do not see that any one can prove that he is mistaken. Each must act as he thinks best; and if he is wrong, so much the worse for him. We stand on a mountain pass in the midst of whirling snow and blinding mist, through which we get glimpses now and then of paths which may be deceptive. If we stand still we shall be frozen to death. If we take the wrong road we shall be dashed to pieces. We do not certainly know whether there is any right one. What must we do? 'Be strong and of a good courage.' Act for the best, hope for the best, and take what comes.... If death ends all, we cannot meet death better."⁴

NOTES

1. Compare Wilfrid Ward's Essay "The Wish to Believe," in his *Witnesses to the Unseen* (Macmillan & Co., 1893).
2. "The heart has its reasons which reason does not know." Editor's Trans.
3. Since belief is measured by action, he who forbids us to believe religion to be true, necessarily also forbids us to act as we should if we did believe it to be true. The whole defence of religious faith hinges upon action. If the action required or inspired by the religious hypothesis is in no way different from that dictated by the naturalistic hypothesis, then religious faith is a pure superfluity, better pruned away, and controversy about its legitimacy is a piece of idle trifling, unworthy of serious minds. I myself believe, of course, that the religious hypothesis gives to the world an expression which specifically determines our reactions, and makes them in a large part unlike what they might be on a purely naturalistic scheme of belief.
4. *Liberty, Equality, Fraternity*, p. 353, 2d edition (London, 1874).



Human Knowledge: Its Grounds and Limits

D

URING THE GREAT GOLDEN AGE of philosophy, in the seventeenth and eighteenth centuries, problems about the nature of human knowledge divided philosophers into two schools. Despite changing idioms and increased understanding of the methods of science, the division to a large degree persists. On the one hand, the empiricists, whose leading thinkers were John Locke (1632-1704), George Berkeley (1685-1753), and David Hume (1711-1776), held that all our ideas come from experience and that no proposition about any matter of fact can be known to be true independently of experience. On the other hand, the rationalists, whose most important representatives were Rene Descartes (1596-1650), Baruch Spinoza (1632-1677), and Gottfried Leibniz (1646-1716), maintained that there are innate ideas and that certain general propositions (usually called a priori propositions) can be known to be true in advance of, or in the absence of, empirical verification.i

Advocates of the theory of innate ideas did not, of course, hold that we are born literally thinking certain thoughts, but rather that we are born with inherited dispositions to have thoughts of a certain form and structure. Just as dehydrated milk has the disposition to become milk when water is added to it, so the mind, on this theory, has from birth the disposition to acquire the concepts of being, substance, duration even infinitude and God—once a certain amount of experience is "added to it." Thus, rationalism holds that there can be in the mind ideas and truths that were not first present in experience but only later activated by experience. For the empiricist, on the other hand, the mind is (as Locke put it) like a tablet on which nothing has been written (a *tabula rasa*) until experience writes its message on it.

The writings of Rene Descartes, a leading mathematician, man of science, and philosopher, are a clear example not only of the rationalistic doctrine and method, but also of the rationalistic temper of mind. In the autobiographical *Discourse on Method*, Descartes compares the state of the sciences and philosophy to an ancient European town, grown helter-skelter from an older village, with crooked streets, random walls, and poor sanitation. Of course, we are not accustomed to ripping down whole cities in order to start from scratch the task of rational redesign; but individuals can without arrogance or absurdity think of ripping down and rebuilding their own homes:

... and the same I thought was true of any similar project for reforming the body of the Sciences, or the order of teaching them established in the Schools: but as for the opinions which up to that time I had embraced, I thought that I could not do better than resolve at once to sweep them wholly away, that I might afterwards be in a position to admit either others more correct, or even perhaps the same ones when they had undergone the scrutiny of reason. I firmly believed that in this way I should much better succeed in the conduct of my life, than if I built only upon old foundations, and leaned upon principles which, in my youth, I had taken upon trust.

Thus, Descartes begins his dramatic quest for new "foundations," doubting everything that can be doubted until he finds a solid basis for reconstruction in the indubitable fact of his own existence as a "thinking substance." What makes the argument for his own existence so convincing, Descartes decides, is its "clearness and distinctness." Hence, he has a working criterion of truth to use in the voyage away from his skeptical starting point: Whatever he conceives clearly and distinctly is true.

In his third Meditation, Descartes finds in himself the idea of an infinite God. The idea, he argues, could not be his own invention, nor could it be derived from merely finite experience. Its only possible cause must be the actually existing deity. He then goes on to prove that this deity is no deceiver. Therefore, (a) because God has given us a powerful disposition to believe in the existence of material objects (such as human bodies), (b) because God would be a deceiver if no such objects existed, and (c) because God is not a deceiver, it follows that such objects do exist and that human knowledge is reliable. Intellectual error, then, when it occurs, springs from a kind of hasty willfulness in ourselves and not from God.

Although many philosophers today would quarrel with particular steps in Descartes' arguments, there is no denying that his general method has left its mark on most of his successors. For three centuries, philosophers have tried to give a rational reconstruction of our knowledge, beginning with what is indubitable (or nearly so), and building on it, taking very seriously as they work the nagging claims of imaginary skeptics that what we think we know with certainty we may not really know at all.

Admitting some minimal possibility that hitherto undoubted and apparently indubitable belief might yet be false is for most of us just a matter of make-believe. It will be simply feigning a doubt for the purposes of some irksome riddle or pointless intellectual game that some people find it fun to play. In order fully to appreciate how important it was to seventeenth- and eighteenth-century philosophers to "refute the skeptic," however, one must be able genuinely to doubt, to "doubt with conviction," if you will, to honestly believe that previously undoubted beliefs might yet be false, and to take that real possibility to heart, not just as a move in a game, but as a troublesome disturbance in one's network of convictions and indeed in one's orientation to the world. Imaginative teachers of philosophy often try to give examples from science fiction of what such a frame of mind would be like. The late Charles L. Stevenson, for example, used to introduce Descartes to his beginning students at the University of Michigan with a simple story of his own invention:

Imagine a neurosurgeon whose expertise on the human brain and whose knowledge of daily events are such that he can, with probes, dictate a subject's experiences. After he has implanted electrodes in the brain of a certain male volunteer, the surgeon causes him to experience the removal of the probes, although they are still in place; then to experience going home through the rain, spending the night with his wife, receiving a call from the surgeon in the morning asking him to return to the laboratory, and returning—all this while he is, in fact, still on the operating table.

The next day, the surgeon does actually remove the electrodes and sends the subject home, whereupon his wife inquires indignantly, "Where were you last night?" "Right here with you," the man replies. "Oh, no, you weren't," she rejoins, "and I can prove it. I had the whole neighborhood out searching for you."

Then the enlightened husband smiles and says, "Ah, now I see. That surgeon fooled me. He made me think I came home. But I was on the operating table the whole time."

His smile quickly fades, however, never to return, because from that point forward the poor fellow can never be certain he is not still on the operating table.²

A similar story with more dramatic detail is told by John Pollock in the selection that leads off Part 2. Pollock's illustration of real doubt taken to heart then serves as our introduction to the perennial philosophical problem of skepticism.

Skeptical worries have been around as long as philosophical inquiry. Probably the very deepest sort of philosophical skepticism is epistemological. Such skepticism raises the worry that

all we think we know, including all methods of inquiry in which we have confidence, may at bottom entirely lack justification. Peter Unger, a contemporary philosopher who has taught at New York University for many years, defends this sort of radical skepticism. His master argument is quite simple and powerful: knowledge implies certainty; one can never be certain of anything; therefore one can never know anything. Because the argument is logically valid, anyone who rejects its conclusion-and that will be almost everyone-must find fault with either the first or the second premise (or both). Unger gives a clear and spirited defense of both premises.

Roderick Chisholm, one of the twentieth century's leading epistemologists, then comes to the aid of common sense, and seeks to show how we might have knowledge after all. His primary target is an ages-old skeptical challenge that can be traced back to the ancient Greeks. The challenge proceeds as follows: To have knowledge we must have a reliable method of obtaining it. We can know a method is reliable only if we know that it usually yields the truth. But we can know that it usually yields the truth only if we are already able to separate the true from the false, which by hypothesis we are not able to do without a good method. So we can never have any knowledge. Chisholm argues that the ancient problem can be solved, for we can have knowledge without first having (or knowing that we have) a method or criterion for correctly distinguishing true from false beliefs.

Though Chisholm's piece concludes our section on skepticism, such doubts reemerge almost immediately in the next section, on our knowledge of the external world. Here we begin with excerpts from Bertrand Russell's *Problems of Philosophy*, a book that has served generations as their first introduction to philosophical thinking. Russell offers a characteristically sharp and accessible presentation of the basic worries about how we might gain knowledge of the world. Russell echoes and amplifies many of the deep concerns expressed in Descartes' classic *Meditations* (reprinted here in its entirety). Quite early on in this work, Descartes has us imagine the possibility that everything we know is mistaken. For all we know, an evil demon could be deceiving us about everything, or almost everything. This possibility of deception, says Descartes, undermines our confidence that we can know anything at all. But wait-so long as I think, I can be sure that I exist. From this slender thread, called the *cogito* (short for "*cogito ergo sum*": I think, therefore I am), and an argument for God's existence, Descartes tries to re-establish our justification for our beliefs about most everything we once took for granted.

However, most philosophers following Descartes have doubted that his undertaking was as successful as he himself took it to be. The skeptical doubts that Descartes raises early on in the *Meditations* continue to exercise philosophers, as we have seen. Skeptical doubts are especially likely to torment the empiricist philosopher. Because empiricism holds that the sole source ultimately of our knowledge of things external to us is sense experience, it is a matter of importance to empiricists to explain just how that knowledge is derived from the "impressions" made upon our various sense organs. John Locke rested a great part of his theory upon a crucial distinction first used in antiquity and then revived by Galileo-namely, the distinction between primary and secondary qualities of physical objects. Primary qualities are intrinsic characteristics of the object such as solidity, extension in space (size), figure (shape), motion or rest, and number. These are qualities that the objects would continue to possess even if there were no perceiving beings in the world. Secondary qualities, on the other hand (such qualities as color, taste, smell, sound, warmth, and cold), exist only when actually sensed and then only "in the mind" of the one who senses them. Primary qualities are inseparable from the material object and are found in every part of it, no matter how small. Every conceivable unit of matter, from a

celestial body to an atom, must have some size and shape. (On the other hand, no mere atom could have color.)

Locke also contributed to the terminology of subsequent empiricists the technical term "idea" to stand for "whatever is the object of the understanding when a man thinks" or, more generally, for any direct object of awareness or consciousness.³ And, again, the "ideas" that result from our perception of primary qualities are different from our "ideas" of secondary qualities. When we perceive a primary quality, according to Locke, our "idea" of this quality exactly resembles the corresponding primary quality in the material object itself. In contrast, when we perceive a secondary quality, our "idea" of this quality has no resemblance to a corresponding property of the thing itself. That is, our "idea" of, for instance, color or odor in an object is produced in us by virtue of the object's "power" to reflect and absorb light waves of certain frequencies or to emit molecules in certain degrees of vibration. Because of these capacities or "powers" of material objects, color and odor can come into existence. Yet without eyes, there could be no color; without noses, no odor; and without minds, no "secondary qualities" at all.

Locke's theory of perception, then, does seem to have strong support from scientifically sophisticated common sense. It is often contrasted with another possible theory of perception (a theory held by no reputable philosopher), which is sometimes ascribed (quite unfairly) to the scientifically unsophisticated common sense of "the ordinary person." According to the latter theory, called naive realism, the qualities that Locke called "primary" and those he called "secondary" are both strictly part of physical objects, and both can exist quite independently of perceiving minds. It follows from naive realism that a world without perceiving minds might yet be a colorful, clamorous, and smelly place. Locke's view, in contrast, is that physical substances and their primary qualities can exist independently of sentient minds and only the secondary qualities are mind-dependent. This theory can be called sophisticated realism: "sophisticated" because it seems to accord with what science tells us about secondary qualities; "realism" because it allows that material objects have a real existence independent of minds. Locke's view is often called representative realism because of the tenet that ideas ("in the mind") faithfully mirror or "represent" material objects to us in perception, even though the material objects and the "ideas" by which we come to know them are quite distinct entities. The textbooks also call Locke's view the causal theory of perception because of the tenet that material objects are the causes of the ideas, or appearances, or sense data we have of them. The material substance itself is distinct from its own qualities, even from its own primary qualities, and, not being directly perceivable, must simply be posited as an unknowable "substratum" for its powers and properties. (Locke's conception of substance was rejected by most later empiricists, who preferred to think of a material thing as a mere "bundle of attributes," not as a mysterious entity "underlying" or "possessing" its own attributes.)

The realism of Locke, roughly sketched in the preceding paragraphs, must be understood as the primary target of the arguments of George Berkeley, Bishop of Cloyne. Locke would have approved of Berkeley's systematic demonstration that secondary qualities are mental. Berkeley argues for the conclusion in two ways. First of all, he maintains that extreme degrees of each secondary quality are inseparable in our consciousness from pain. Hence, if it is absurd to imagine that pain is, for example, in or part of the stove, then it is equally absurd to imagine that the heat is literally in the stove. Berkeley's second argument is the famous "argument from the relativity of perception." If I put one ice-chilled hand and one warm hand into a tub of tepid water, the water will feel hot to my cold hand and cold to my hot hand; but the water itself

cannot be both hot and cold. Hence, both heat and cold must be "in the mind" only.

But Berkeley then turns the tables on Locke by arguing in quite similar ways for the necessarily mental status of primary qualities too. If the supporter of Locke accepts these latter arguments, there is nothing left of his conception of an external object beyond that of an unknowable "substratum." Berkeley easily disposes of the concept of a substratum as theoretically superfluous and unintelligible. He is left then with a world in which only perceiving minds ("subjects") and their "ideas" (the appearances of primary and secondary qualities) exist. Hence, the universe is through and through mental. This theory of reality bears the name subjective idealism. (Perhaps idealism would be less misleading, because the theory has nothing whatever to do with ideals.)

Berkeley was as concerned as Descartes or Locke to find a solid alternative to skepticism. As an empiricist, he was resolved to show that all of our ideas, insofar as they are genuine (not merely confused), are derived from experience. What, then, of our idea of corporeal objects such as trees, tables, bodies? Berkeley was driven by his logic and his empiricist starting points to conclude that physical objects, insofar as we have any clear idea of them at all, are simply collections of sense impressions. Those corporeal substances, of which Descartes was at last able to form a "clear and distinct idea," turn out on analysis to be the figments of muddled thought.

Has empiricism then truly reconstructed our knowledge of the world, if this is its conclusion? Doesn't Berkeley's conception of a world "through and through mental" give a violent jolt to common sense? Not so, replies Berkeley. His idealism implies that tables and trees and bodies are just exactly what they seem-colored, shaped, hard, and so on. There is indeed nothing to these things except the qualities they seem to have. Moreover, it is not true that tables "vanish" or "pop out of existence" the moment we turn our backs on them (that would be repugnant to common sense); for God is always perceiving them, and therefore they continue to exist as ideas in His mind. To many later empiricists, this use of God seemed a desperate expedient to save Berkeley's theory from embarrassment. John Stuart Mill (1806-1873) was typical of later empiricists (often called phenomenalists) who found ways to make the rejection of "corporeal substance" more palatable to common sense without invoking a *dens ex machina*. According to Mill, if we say that the table continues to exist when unperceived, all we can mean by this is that if someone were to look in a certain place, then he would have sense impressions of a certain (table-like) kind; for material objects are not simply bundles of actual sense impressions but are rather to be understood as "permanent possibilities of sensation," and this conception exhausts whatever clear idea we have of them. Some writers have suggested that phenomenalism (the view of David Hume as well as of Mill) can be thought of as "Berkeley's view without Berkeley's God."

The great opponent of the view that all reality is mental was Hume's countryman and almost exact contemporary, Thomas Reid (1710-1796). It was Reid's primary purpose to vindicate common sense against the skepticism to which empiricism seemed finally to be driven. The "Scottish Common Sense School," of which Reid was the chief spokesman, had very widespread influence, particularly in the United States in the nineteenth century. Reid concedes to Berkeley and Hume that we cannot infer the existence of enduring corporeal (nonmental) objects from our mere sense impressions. Nevertheless, he contends, our belief in such objects is no mere "opinion got by reasoning"; it is, rather, a natural principle of the human constitution, as reliable and as inevitable as any of the natural principles that govern our reasonings. (If, as Reid suggests, we think of nature, as designed by God, then we can find strong similarities in his position to the argument of Descartes that "God can be no deceiver.")

This section concludes with G. E. Moore's now-classic "proof" of an external world. Moore inherited from Reid a very sturdy appreciation of common sense, and would have no truck with skeptical hypotheses of the sort that have plagued philosophers for so long. Moore stuck out his two hands, proclaimed the certainty of their existence, and that was that. Whether that really is the end of the story is a matter that has been discussed ever since.

David Hume in the eighteenth century applied the empiricist philosophy not only to the concept of a material substance but to other basic concepts as well, with results that even he called skeptical. Unlike Berkeley, who regarded skepticism as a charge to be rebutted, Hume thought of it as a position to be reluctantly adopted. In the selections included here, he examines the concept of causation and finds no more sense in the idea of a "necessary connection" between cause and effect (when we drop a stone, it must fall-so we think) than Berkeley did in the idea of "corporeal substance." We may continue to talk, as Hume himself does, of one thing's causing another, but all we can mean is that events of the first kind are in fact constantly conjoined with events of the second kind; and the so-called necessity that the second follow the first is simply the reflection of our habitual expectation. Hume would not have us deny the plain reports of our senses or the fruits of our mathematical deductions; he merely points out that there is no logically infallible method of achieving truth about matters of fact, and indeed no method at all for reasoning about matters that lie beyond all experience. But this kind of skepticism need not force us into a permanent suspension of judgment about all things, even in the practical affairs of life; for we will (as Hume elsewhere puts it) continue to leave buildings by the first-floor door rather than the upstairs window, and "Nature will always maintain her rights and prevail in the end over any abstract reasoning whatever."

The article "An Encounter with David Hume" was written specifically for the third edition of this volume by Wesley C. Salmon, of the University of Pittsburgh. It is meant to show the beginning student of philosophy and science ("Physics 1a") how natural Hume's doubts can seem to one who ponders the methods and results of the exact sciences and how important it is to our conception of scientific knowledge to come to terms with those doubts. In particular, Salmon discusses such scientific notions as causation, inductive inference, probability, laws of nature, the regularity of nature, necessity, and predictability, in the light of Hume's empiricism. Salmon's essay views these matters through the eyes of a sensitive undergraduate student of physics who comes to wonder whether all science rests ultimately on a kind of "faith" in the uniformity of nature that cannot be rationally demonstrated to be correct. If this is so, he asks (with a certain amount of anguish), how can physics be shown to be a more reliable guide to knowledge of the future than, say, astrology or crystal gazing? These questions pose in a very rough way what has come to be called "the problem of induction" or "Hume's riddle of induction." Salmon concludes by sketching the main strategies that have been proposed by philosophers for coming to terms with Hume's skeptical doubts about scientific method.

The theory of knowledge comes by its interest in the philosophy of science quite naturally, since the methods of science have been the most reliable-some philosophers say the only reliable-producers of knowledge. The first question epistemologists should ask about science, of course is: When are investigative methods properly called "scientific"? A full answer to the question "What is science?", however, will describe what job is assigned to science either in its crude or developed state and contrast that task with that of other cultural activities that could be, and often are, confused with it.

Perhaps the most influential answer of the last century was that offered by Sir Karl Popper, a renowned philosopher of science. In the paper included here, Popper argues that the

essence of scientific claims lies in their falsifiability. He contrasts the claims of physics, for instance, with those of astrology and Freudian psychology, and demotes the latter to nonscientific status by virtue of his falsifiability criterion. This criterion states that hypotheses must be testable in order to qualify as scientific; a scientific claim must have a chance of being shown false in order for it to pass scientific muster. If no evidence could possibly count against a claim—think, for instance, of certain extreme conspiracy theories, whose proponents interpret all evidence in such a way as to support their far-fetched views—then it loses its status as a scientific claim.

Popper's views occasioned a great deal of discussion about what he termed "the demarcation problem"—the problem of sharply distinguishing between scientific and nonscientific realms. There is consensus today that Popper's falsifiability criterion does not work. In fact, most philosophers of science nowadays believe that the demarcation problem cannot be decisively solved with the introduction of any short, simple criterion. There is no black-and-white test that will distinguish the scientific from the nonscientific.

Still, there is very broad agreement among philosophers that certain kinds of inquiry do and do not count as properly scientific. In the final piece in this section, Philip Kitcher, a prominent philosopher of science at Columbia University, gives us his take on the demarcation problem. Focusing on recent creationist claims to equal time in high school classrooms, Kitcher tackles the question of what distinguishes genuine biological and physical science from other views that aspire to their scientific status. Along the way he considers Popper's falsifiability criterion, and reveals what is mistaken in a number of creationist critiques of evolutionary theory. He concludes his essay with a positive account of the elements of scientific claims. Whether Kitcher's is the final word on the matter is left for the reader to consider. What is certain is that philosophers remain deeply puzzled by the issues of what constitutes science, scientific knowledge, and scientific confirmation.

SKEPTICISM

The Problem of the Criterion

RODERICK M. CHISHOLM

Roderick M. Chisholm (1916-1999), one of America's most distinguished epistemologists, spent his entire career at Brown University.

An edited version of "The Problem of the Criterion," from Roderick M. Chisholm, *The Foundations of Knowing* (Sussex: Harvester Press, 1982), pp. 61-75. Reprinted by permission of Marquette University Press.

1

"The problem of the criterion" seems to me to be one of the most important and one of the most difficult of all the problems of philosophy. I am tempted to say that one has not begun to philosophize until one has faced this problem and has recognized how unappealing, in the end, each of the possible solutions is....

2

What is the problem, then? It is the ancient problem of "the problem of 'the wheel' or 'the vicious circle.'" It was put very neatly by Montaigne in his *Essays*. So let us begin by paraphrasing his formulation of the puzzle. To know whether things really are as they seem to be, we must have a procedure for distinguishing appearances that are true from appearances that are false. But to know whether our procedure is a good procedure, we have to know whether it really succeeds in distinguishing appearances that are true from appearances that are false. And we cannot know whether it does really succeed unless we already know which appearances are true and which ones are false. And so we are caught in a circle.'

Let us try to see how one gets into a situation of this sort.

The puzzles begin to form when you ask yourself, "What can I really know about the world?" We are all acquainted with people who think they know a lot more than in fact they do know. I'm thinking of fanatics, bigots, mystics, various types of dogmatists. And we have all heard of people who claim at least to know a lot less than what in fact they do know. I'm thinking of those people who call themselves "skeptics" and who like to say that people cannot know what the world is really like. People tend to become skeptics, temporarily, after reading books on popular science: the authors tell us we cannot know what things are like really (but they make use of a vast amount of knowledge, or a vast amount of what is claimed to be knowledge, to support this skeptical conclusion). And as we know, people tend to become dogmatists, temporarily, as a result of the effects of alcohol, or drugs, or religious and emotional experiences. Then they claim to have an inside view of the world and they think they have a deep kind of knowledge giving them a key to the entire workings of the universe.

If you have a healthy common sense, you will feel that something is wrong with both of

these extremes and that the truth is somewhere in the middle: we can know far more than the skeptic says we can know and far less than the dogmatist or the mystic says that he can know. But how are we to decide these things?

3

How do we decide, in any particular case, whether we have a genuine item of knowledge? Most of us are ready to confess that our beliefs far transcend what we really know. There are

things we believe that we don't in fact know. And we can say of many of these things that we know that we don't know them. I believe that Mrs. Jones is honest, say, but I don't know it, and I know that I don't know it. There are other things that we don't know, but they are such that we don't know that we don't know them. Last week, say, I thought I knew that Mr. Smith was honest, but he turned out to be a thief. I didn't know that he was a thief, and, moreover, I didn't know that I didn't know that he was a thief; I thought I knew that he was honest. And so the problem is: How are we to distinguish the real cases of knowledge from what only seem to be cases of knowledge? Or, as I put it before, how are we to decide in any particular case whether we have genuine items of knowledge?

What would be a satisfactory solution to our problem? Let me quote in detail what Cardinal Mercier says:

If there is any knowledge which bears the mark of truth, if the intellect does have a way of distinguishing the true and the false, in short, if there is a criterion of truth, then this criterion should satisfy three conditions: it should be internal, objective, and immediate.

It should be internal. No reason or rule of truth that is provided by an external authority can serve as an ultimate criterion. For the reflective doubts that are essential to criteriology can and should be applied to this authority itself. The mind cannot attain to certainty until it has found within itself a sufficient reason for adhering to the testimony of such an authority.

The criterion should be objective. The ultimate reason for believing cannot be a merely subjective state of the thinking subject. A man is aware that he can reflect upon his psychological states in order to control them. Knowing that he has this ability, he does not, so long as he has not made use of it, have the right to be sure. The ultimate ground of certitude cannot consist in a subjective feeling. It can be found only in that which, objectively, produces this feeling and is adequate to reason.

Finally, the criterion must be immediate. To be sure, a certain conviction may rest upon many different reasons some of which are subordinate to others. But if we are to avoid an infinite regress, then we must find a ground of assent that presupposes no other. We must find an immediate criterion of certitude.

Is there a criterion of truth that satisfies these three conditions? If so, what is it?2

4

To see how perplexing our problem is, let us consider a figure that Descartes had suggested and that Coffey takes up in his dealings with the problem of the criterion. A Descartes' figure comes to this.

Let us suppose that you have a pile of apples and you want to sort out the good ones from the bad ones. You want to put the good ones in a pile by themselves and throw the bad ones away. This is a useful thing to do, obviously, because the bad apples tend to infect the good ones and then the good ones become bad, too. Descartes thought our beliefs were like this. The bad ones tend to infect the good ones, so we should look them over very carefully, throw out the bad ones if we can, and then-or so Descartes hoped-we would be left with just a stock of good beliefs

on which we could rely completely. But how are we to do the sorting? If we are to sort out the good ones from the bad ones, then, of course, we must have a way of recognizing the good ones. Or at least we must have a way of recognizing the bad ones. And-again, of course you and I do have a way of recognizing good apples and also of recognizing bad ones. The good ones have their own special feel, look, and taste, and so do the bad ones.

But when we turn from apples to beliefs, the matter is quite different. In the case of the apples, we have a method-a criterion-for distinguishing the good ones from the bad ones. But in the case of the beliefs, we do not have a method or a criterion for distinguishing the good ones from the bad ones. Or, at least, we don't have one yet. The question we started with was: How are we to tell the good ones from the bad ones? In other words, we were asking: What is the proper method for deciding which are the good beliefs and which are the bad ones which beliefs are genuine cases of knowledge and which beliefs are not?

And now, you see, we are on the wheel. First, we want to find out which are the good beliefs

and which are the bad ones. To find this out we have to have some way-some method-of deciding which are the good ones and which are the bad ones. But there are good and bad and bad ways-of sorting out the good beliefs from the bad ones. And so we now have a new problem: How are we to decide which are the good methods and which are the bad ones?

If we could fix on a good method for distinguishing between good and bad methods, we might be all set. But this, of course, just moves the problem to a different level. How are we to distinguish between a good and a bad method for choosing good methods? If we continue in this way, of course, we are led to an infinite regress and we will never have the answer to our original question.

What do we do in fact? We do know that there are fairly reliable ways of sorting out good beliefs from bad ones. Most people will tell you, for example, that if you follow the procedures of science and common sense-if you tend carefully to your observations and if you make use of the canons of logic, induction, and the theory of probability-you will be following the best possible procedure for making sure that you will have more good beliefs than bad ones. This is doubtless true. But how do we know that it is? How do we know that the procedures of science, reason, and common sense are the best methods that we have?

If we do know this, it is because we know that these procedures work. It is because we know that these procedures do in fact enable us to distinguish the good beliefs from the bad ones. We say: "See-these methods turn out good beliefs." But how do we know that they do? It can only be that we already know how to tell the difference between the good beliefs and the bad ones.

And now you can see where the skeptic comes in. He'll say this: "You said you wanted to sort out the good beliefs from the bad ones. Then to do this, you apply the canons of science, common sense, and reason. And now, in answer to the question, 'How do you know that that's the right way to do it?', you say 'Why, I can see that the ones it picks out are the good ones and the ones it leaves behind are the bad ones.' But if you can see which ones are the good ones and which ones are the bad ones, why do you think you need a general method for sorting them out?"

5

We can formulate some of the philosophical issues that are involved here by distinguishing two pairs of questions. These are:

A) "What do we know? What is the extent of our knowledge?"

B) "How are we to decide whether we know? What are the criteria of knowledge?"

If you happen to know the answers to the first of these pairs of questions, you may have some hope of being able to answer the second. Thus, if you happen to know which are the good apples and which are the bad ones, then maybe you could explain to some other person how he could go about deciding whether or not he has a good apple or a bad one. But if you don't know the answer to the first of these pairs of questions-if you don't know what things you know or how far your knowledge extends-it is difficult to see how you could possibly figure out an answer to the second.

On the other hand, if, somehow, you already know the answers to the second of these pairs of questions, then you may have some hope of being able to answer the first. Thus, if you happen to have a good set of directions for telling whether apples are good or bad, then maybe you can go about finding a good one-assuming, of course, that there are some good apples to be found. But if you don't know the answer to the second of these pairs of questions-if you don't know how to go about deciding whether or not you know, if you don't know what the criteria of knowing are-it is difficult to see how you could possibly figure out an answer to the first.

And so we can formulate the position of the skeptic on these matters. He will say: "You cannot answer question A until you have answered question B. And you cannot answer question B until you have answered question A. Therefore you cannot answer either question. You cannot know what, if anything, you know, and there is no possible way for you to decide in any particular case." Is there any reply to this?

6

Broadly speaking, there are at least two other possible views. So we may choose among three possibilities.

There are people-philosophers-who think that they do have an answer to B and that, given their answer to B, they can then figure out their answer to A. And there are other philosophers-who have it the other way around: they think that they have an answer to A and that, given their answer to A, they can then figure out the answer to B.

There don't seem to be any generally accepted names for these two different philosophical positions. (Perhaps this is just as well. There are more than enough names, as it is, for possible philosophical views.) I suggest, for the moment, we use the expressions "methodists" and "particularists." By "methodists," I mean, not the followers of John Wesley's version of Christianity, but those who think they have an answer to B, and who then, in terms of it, work out their answer to A. By "particularists" I mean those who have it the other way around.

7

Thus John Locke was a methodist-in our present, rather special sense of the term. He was able to arrive-somehow-at an answer to B. He said, in effect: "The way you decide whether or not a belief is a good belief-that is to say, the way you decide whether a belief is likely to be a genuine case of knowledge-is to see whether it is derived from sense experience, to see, for example, whether it bears certain relations to your sensations." Just what these relations to our sensations might be is a matter we may leave open, for present purposes. The point is: Locke felt that if a belief is to be credible, it must bear certain relations to the believer's sensations-but he never told us how he happened to arrive at this conclusion. This, of course, is the view that has come to be known as "empiricism." David Hume followed Locke in this empiricism and said that empiricism gives us an effective criterion for distinguishing the good apples from the bad ones. You can take this criterion to the library, he said. Suppose you find a book in which the author makes assertions that do not conform to the empirical criterion. Hume said: "Commit it to the flames: for it can contain nothing but sophistry and illusion."

Empiricism, then, was a form of what I have called "methodism." The empiricist-like other types of methodist-begins with a criterion and then he uses it to throw out the bad apples. There are two objections, I would say, to empiricism. The first-which applies to every form of methodism (in our present sense of the word)-is that the criterion is very broad and far-reaching and at the same time completely arbitrary. How can one begin with a broad generalization? It seems especially odd that the empiricist-who wants to proceed cautiously, step by step, from experience-begins with such a generalization. He leaves us completely in the dark so far as concerns what reasons he may have for adopting this particular criterion rather than some other. The second objection applies to empiricism in particular. When we apply the empirical criterion-at least, as it was developed by Hume, as well as by many of those in the nineteenth and twentieth centuries who have called themselves "empiricists"-we seem to throw out, not only the bad apples but the good ones as well, and we are left, in effect, with just a few parings or skins with no meat behind them. Thus Hume virtually conceded that, if you are going to be empiricist, the only matters of fact that you can really know about pertain to the existence of sensations. " 'Tis vain," he said, "To ask whether there be body." He meant you cannot know whether any physical things exist-whether there are trees, or houses, or bodies, much less whether there are atoms or other such microscopic particles. All you can know is that there are and have been certain sensations. You cannot know whether there is any you who experiences those sensations-much less whether any other people exist who experience sensations. And I think, if he had been consistent in his empiricism, he would also have said you cannot really be sure whether there have been any sensations in the past; you can know only that certain sensations exist here and now.

The great Scottish philosopher, Thomas Reid, reflected on all this in the eighteenth century. He was serious about philosophy and man's place in the world. He finds Hume saying things implying that we can know only of the existence of certain sensations here and now. One can imagine him saying: "Good Lord! What kind of nonsense is this?" What he did say, among other things, was this: "A traveler of good judgment may mistake his way, and be unawares led into a wrong track; and while the road is fair before him, he may go on without suspicion and be followed by others but, when it ends in a coal pit, it requires no great judgment to know that he hath gone wrong, nor perhaps to find out what misled him."⁴

Thus Reid, as I interpret him, was not an empiricist; nor was he, more generally, what I have called a "methodist." He was a "particularist." That is to say, he thought that he had an answer to question A, and in terms of the answer to question A, he then worked out kind of an answer to question B.⁵ An even better example of a "particularist" is the great twentieth century English philosopher, G. E. Moore.

Suppose, for a moment, you were tempted to go along with Hume and say "The only thing about the world I can really know is that there are now sensations of a certain sort. There's a sensation of a man, there's the sound of a voice, and there's a feeling of bewilderment or boredom. But that's all I can really know about." What would Reid say? I can imagine him saying something like this: "Well, you can talk that way if you want to. But you know very well that it isn't true. You know that you are there, that you have a body of such and such a sort and that other people are here, too. And you know about this building where you were this morning and all kinds of other things as well." G. E. Moore would raise his hand at this point and say: "I know very well this is a hand, and so do you. If you come across some philosophical theory that

implies that you and I cannot know that this is a hand, then so much the worse for the theory." I think that Reid and Moore are right, myself, and I'm inclined to think that the "methodists" are wrong.

Going back to our questions A and B, we may summarize the three possible views as follows: there is skepticism (you cannot answer either question without presupposing an answer to the other, and therefore the questions cannot be answered at all); there is "methodism" (you begin with an answer to B); and there is "particularism" (you begin with an answer to A). I suggest that the third possibility is the most reasonable.

10

I would say-and many reputable philosophers would disagree with me-that, to find out whether you know such a thing as that this is a hand, you don't have to apply any test or criterion. Spinoza has it right. "In order to know," he said, "there is no need to know that we know, much less to know that we know that we

This is part of the answer, it seems to me, to the puzzle about the diallelus. There are many things that quite obviously, we do know to be true. If I report to you the things I now see and hear and feel-or, if you prefer, the things I now think I see and hear and feel-the chances are that my report will be correct; I will be telling you something I know. And so, too, if you report the things that you think you now see and hear and feel. To be sure, there are hallucinations and illusions. People often think they see or hear or feel things that in fact they do not see or hear or feel. But from this fact that our senses do sometimes deceive us-it hardly follows that your senses and mine are

deceiving you and me right now. One may say similar things about what we remember.

Having these good apples before us, we can look them over and formulate certain criteria of goodness. Consider the senses, for example. One important epistemological principle-was formulated by St. Augustine. It is more reasonable, he said, to trust the senses than to distrust them. Even though there have been illusions and hallucinations, the wise thing, when everything seems all right, is to accept the testimony of the senses. I say "when everything seems all right." If on a particular occasion something about that particular occasion makes you suspect that particular report of the senses, if, say, you seem to remember having been drugged or hypnotized, or brainwashed, then perhaps you should have some doubts about what you think you see, or hear, or feel, or smell. But if nothing about this particular occasion leads you to suspect what the senses report on this particular occasion, then the wise thing is to take such a report at its face value. In short the senses should be regarded as innocent until there is some positive reason, on some particular occasion, for thinking that they are guilty on that particular occasion.

One might say the same thing of memory. If, on any occasion, you think you remember that such-and-such an event occurred, then the wise thing is to assume that that particular event did occur-unless something special about this particular occasion leads you to suspect your memory.

We have then a kind of answer to the puzzle about the diallelus. We start with particular cases of knowledge and then from those we generalize and formulate criteria of goodness-criteria telling us what it is for a belief to be epistemologically respectable....

Conclusion

So far as our problem of the criterion is concerned, the essential thing to note is this. In formulating such principles we will simply proceed as Aristotle did when he formulated his rules for the syllogism. As "particularists" in our approach to the problem of the criterion, we will fit

our rules to the cases-to the apples we know to be good and to the apples we know to be bad. Knowing what we do about ourselves and the world, we have at our disposal certain instances that our rules or principles should countenance, and certain other instances that our rules or principles should rule out or forbid. And, as rational beings, we assume that by investigating these instances we can formulate criteria that any instance must satisfy if it is to be countenanced and we can formulate other criteria that any instance must satisfy if it is to be ruled out or forbidden.

If we proceed in this way we will have satisfied Cardinal Mercier's criteria for a theory of evidence or, as he called it, a theory of certitude. He said that any criterion, or any adequate set of criteria, should be internal, objective, and immediate. The type of criteria I have referred to are certainly internal, in his sense of the term. We have not appealed to any external authority as constituting the ultimate test of evidence. (Thus we haven't appealed to "science" or to "the scientists of our culture circle" as constituting the touchstone of what we know.) I would say that our criteria are objective. We have formulated them in terms of the concept of epistemic preferability-where the location "p is epistemically preferable to q for S" is taken to refer to an objective relation that obtains independently of the actual preferences of any particular subject. The criteria that we formulate, if they are adequate, will be principles that are necessarily true. And they are also immediate. Each of them is such that, if it is applicable at any particular time, then the fact that it is then applicable is capable of being directly evident to that particular subject at that particular time.

But in all of this I have presupposed the approach I have called "particularism." The "methodist" and the "skeptic" will tell us that we have started in the wrong place. If now we try to reason with them, then, I am afraid, we will be back on the wheel.

What few philosophers have had the courage to recognize is this: we can deal with the problem only by begging the question. It seems to me that, if we do recognize this fact, as we should, then it is unseemly for us to try to pretend that it isn't so.

One may object: "Doesn't this mean, then, that the skeptic is right after all?" I would answer: "Not at all. His view is only one of the three possibilities and in itself has no more to recommend it than the others do. And in favor of our approach there is the fact that we do know many things, after all."

NOTES

1. The quotation is a paraphrase. What Montaigne wrote was: "Pour juger des apparences que nous recevons des subjects, il nous faudroit un instrument judiciaire; pour verifier cet instrument, il nous y faut de la demonstration; pour verifier la demonstration, un instrument; noun voyla an rouet. Puisque l'homme ne peut arrester nostre dispute, estans pleins euxmesmes d'incertitude, il faut que se soit la raison; aucun raison s'establira sans une autre raison: Nous voyla a reculons jusques a l'infiny." The passage appears in book 2, chapter 12 ("An Apologie of Raymond Sebond"); it may be found on page 544 of the Modern Library edition of *The Essays of Montaigne*.

2. Cardinal D. J. Mercier, *Criteriologie Generale ou Theorie Generale de la Certitude*, 8th Edition (Louvain, 1923), p. 234.

3. See the reply to the VIIth set of Objections and Coffey, vol. 1, p. 127.

4. Thomas Reid, *Inquiry into the Human Mind*, chap. 1, sec. 8.

5. Unfortunately Cardinal Mercier takes Reid to be what I have called a "methodist." He assumes, incorrectly I think, that Reid defends certain principles (principles that Reid calls principles of "common sense") on the ground that these principles happen to be the deliverance

of a faculty called "common sense." See Mercier, pp. 179-81.

6. On Improvement of the Understanding, in *Chief Works of Benedict de Spinoza*, vol. 2, trans. R. H. M. Elwcs, rev. ed. (London: George Bell and Sons, 1898), p. 13.

OUR KNOWLEDGE OF THE EXTERNAL WORLD

Appearance and Reality and the Existence of Matter

BERTRAND RUSSELL

Bertrand Russell (1872-1970) was one of the greatest philosophers of the twentieth century. His philosophical contributions ranged across many areas; he was also an important social critic. He received the Nobel prize for literature in 1950.

From B. Russell, *Problems of Philosophy*, chs. 1 and 2.

I

Is there any knowledge in the world which is so certain that no reasonable man could doubt it? This question, which at first sight might not seem difficult, is really one of the most difficult that can be asked. When we have realized the obstacles in the way of a straightforward and confident answer, we shall be well launched on the study of philosophy—for philosophy is merely the attempt to answer such ultimate questions, not carelessly and dogmatically, as we do in ordinary life and even in the sciences, but critically after exploring all that makes such questions puzzling, and after realizing all the vagueness and confusion that underlie our ordinary ideas.

In daily life, we assume as certain many things which, on a closer scrutiny, are found to be so full of apparent contradictions that only a great amount of thought enables us to know what it is that we really may believe. In the search for certainty, it is natural to begin with our present experiences, and in some sense, no doubt, knowledge is to be derived from them. But any statement as to what it is that our immediate experiences make us know is very likely to be wrong. It seems to me that I am now sitting in a chair, at a table of a certain shape, on which I see sheets of paper with writing or print. By turning my head I see out of the window buildings and clouds and the sun. I believe that the sun is about ninety-three million miles from the earth; that it is a hot globe many times bigger than the earth; that, owing to the earth's rotation, it rises every morning, and will continue to do so for an indefinite time in the future. I believe that, if any other normal person comes into my room, he will see the same chairs and tables and books and papers as I see, and that the table which I see is the same as the table which I feel pressing against my arm. All this seems to be so evident as to be hardly worth stating, except in answer to a man who doubts whether I know anything. Yet all this may be reasonably doubted, and all of it requires much careful discussion before we can be sure that we have stated it in a form that is wholly true.

To make our difficulties plain, let us concentrate attention on the table. To the eye it is oblong, brown, and shiny; to the touch it is smooth and cool and hard; when I tap it, it gives out a wooden sound. Anyone else who sees and feels and hears the table will agree with this description, so that it might seem as if no difficulty would arise; but as soon as we try to be more precise our troubles begin. Although I believe that the table is "really" of the same colour all over, the parts that reflect the light look much brighter than the other parts, and some parts look white because of reflected light. I know that, if I move, the parts that reflect the light will be different, so that the apparent distribution of colours on the table will change. It follows that if

several people are looking at the table at the same moment, no two of them will see exactly the same distribution of colours, because no two can see it from exactly the same point of view, and any change in the point of view makes some change in the way the light is reflected.

For most practical purposes these differences are unimportant, but to the painter they are allimportant: The painter has to unlearn the habit of thinking that things seem to have the colour which common sense says they "really" have, and to learn the habit of seeing things as they appear. Here we have already the beginning of one of the distinctions that cause most trouble in philosophy-the distinction between "appearance" and "reality," between what things seem to be and what they are. The painter wants to know what things seem to be, the practical man and the philosopher want to know what they are; but the philosopher's wish to know this is stronger than the practical man's and is more troubled by knowledge as to the difficulties of answering the question.

To return to the table. It is evident from what we have found, that there is no colour which preeminently appears to be the colour of the table, or even of any one particular part of the table-it appears to be of different colours from different points of view, and there is no reason for regarding some of these as more really its colour than others. And we know that even from a given point of view the colour will seem different by artificial light, or to a colour-blind man, or to a man wearing blue spectacles, while in the dark there will be no colour at all, though to touch and hearing the table will be unchanged. This colour is not something which is inherent in the table, but something depending upon the table and the spectator and the way the light falls on the table. When, in ordinary life, we speak of the colour of the table, we only mean the sort of colour which it will seem to have to a normal spectator from an ordinary point of view under usual conditions of light. But the other colours which appear under other conditions have just as good a right to be considered real; and therefore, to avoid favouritism, we are compelled to deny that, in itself, the table has any one particular colour.

The same thing applies to the texture. With the naked eye one can see the grain, but otherwise the table looks smooth and even. If we looked at it through a microscope, we should see roughnesses and hills and valleys, and all sorts of differences that are imperceptible to the naked eye. Which of these is the "real" table? We are naturally tempted to say that what we see through the microscope is more real, but that in turn would be changed by a still more powerful microscope. If, then, we cannot trust what we see with the naked eye, why should we trust what we see through a microscope? Thus, again, the confidence in our senses with which we began deserts us.

The shape of the table is no better. We are all in the habit of judging as to the "real" shapes of things, and we do this so unreflectingly that we come to think we actually see the real shapes. But, in fact, as we all have to learn if we try to draw, a given thing looks different in shape from every different point of view. If our table is "really" rectangular, it will look, from almost all points of view, as if it had two acute angles and two obtuse angles. If opposite sides are parallel, they will look as if they converged to a point away from the spectator; if they are of equal length, they will look as if the nearer side were longer. All these things are not commonly noticed in looking at a table, because experience has taught us to construct the "real" shape from the apparent shape, and the "real" shape is what interests us as practical men. But the "real" shape is not what we see; it is something inferred from what we see. And what we see is constantly changing in shape as we move about the room; so that here again the senses seem not to give us the truth about the table itself, but only about the appearance of the table.

Similar difficulties arise when we consider the sense of touch. It is true that the table

always gives us a sensation of hardness, and we feel that it resists pressure. But the sensation we obtain depends upon how hard we press the table and also upon what part of the body we press with; thus the various sensations due to various pressures or various parts of the body cannot be supposed to reveal directly any definite property of the table, but at most to be signs of some property which perhaps causes all the sensations, but is not actually apparent in any of them. And the same applies still more obviously to the sounds which can be elicited by rapping the table.

Thus it becomes evident that the real table, if there is one, is not the same as what we immediately experience by sight or touch or hearing. The real table, if there is one, is not immediately known to us at all, but must be an inference from what is immediately known. Hence, two very difficult questions at once arise; namely, (1) Is there a real table at all? (2) If so, what sort of object can it be?

It will help us in considering these questions to have a few simple terms of which the meaning is definite and clear. Let us give the name of "sense-data" to the things that are immediately known in sensation: such things as colours, sounds, smells, hardnesses, roughnesses, and so on. We shall give the name "sensation" to the experience of being immediately aware of these things. Thus, whenever we see a colour, we have a sensation of the colour, but the colour itself is a sense-datum, not a sensation. The colour is that of which we are immediately aware, and the awareness itself is the sensation. It is plain that if we are to know anything about the table, it must be by means of the sense-data brown colour, oblong shape, smoothness, etc. which we associate with the table; but, for the reasons which have been given, we cannot say that the table is the sense-data, or even that the sense-data are directly properties of the table. Thus a problem arises as to the relation of the sense-data to the real table, supposing there is such a thing.

The real table, if it exists, we will call a "physical object." Thus we have to consider the relation of sense-data to physical objects. The collection of all physical objects is called "matter." Thus our two questions may be restated as follows: (1) Is there any such thing as matter? (2) If so, what is its nature?

The philosopher who first brought prominently forward the reasons for regarding the immediate objects of our senses as not existing independently of us was Bishop Berkeley (1685-1753). His *Three Dialogues between Hylas and Philonous*, in *Opposition to Sceptics and Atheists*, undertake to prove that there is no such thing as matter at all, and that the world consists of nothing but minds and their ideas. Hylas has hitherto believed in matter, but he is no match for Philonous, who mercilessly drives him into contradictions and paradoxes, and makes his own denial of matter seem, in the end, as if it were almost common sense. The arguments employed are of very different value: Some are important and sound, others are confused or quibbling. But Berkeley retains the merit of having shown that the existence of matter is capable of being denied without absurdity, and that if there are any things that exist independently of us they cannot be the immediate objects of our sensations.

There are two different questions involved when we ask whether matter exists, and it is important to keep them clear. We commonly mean by "matter" something which is opposed to "mind," something which we think of as occupying space and as radically incapable of any sort of thought or consciousness. It is chiefly in this sense that Berkeley denies matter; that is to say, he does not deny that the sense-data which we commonly take as signs of the existence of the table are really signs of the existence of something independent of us, but he does deny that this something is nonmental, that it is neither mind nor ideas entertained by some mind. He admits that there must be something which continues to exist when we go out of the room or shut our

eyes, and that what we call seeing the table does really give us reason for believing in something which persists even when we are not seeing it. But he thinks that this something cannot be radically different in nature from what we see, and cannot be independent of seeing altogether, though it must be independent of our seeing. He is thus led to regard the "real" table as an idea in the mind of God. Such an idea has the required permanence and independence of ourselves, without being-as matter would otherwise quite unknowable, in the sense that we can only infer it, and can never be directly and immediately aware of it.

Other philosophers since Berkeley have also held that, although the table does not depend for its existence upon being seen by me, it does depend upon being seen (or otherwise apprehended in sensation) by some mind-not necessarily the mind of God, but more often the whole collective mind of the universe. This they hold, as Berkeley does, chiefly because they think there can be nothing real-or at any rate nothing known to be real except minds and their thoughts and feelings. We might state the argument by which they support their view in some such way as this: "Whatever can be thought of is an idea in the mind of the person thinking of it; therefore nothing can be thought of except ideas in minds; therefore anything else is inconceivable, and what is inconceivable cannot exist."

Such an argument, in my opinion, is fallacious; and of course those who advance it do not put it so shortly or so crudely. But whether valid or not, the argument has been very widely advanced in one form or another; and very many philosophers, perhaps a majority, have held that there is nothing real except minds and their ideas. Such philosophers are called "idealists." When they come to explaining matter, they either say, like Berkeley, that matter is really nothing but a collection of ideas, or they say, like Leibniz (1646-1716), that what appears as matter is really a collection of more or less rudimentary minds.

But these philosophers, though they deny matter as opposed to mind, nevertheless, in another sense, admit matter. It will be remembered that we asked two questions; namely, (1) Is there a real table at all? (2) If so, what sort of object can it be? Now both Berkeley and Leibniz admit that there is a real table, but Berkeley says it is certain ideas in the mind of God, and Leibniz says it is a colony of souls. Thus both of them answer our first question in the affirmative, and only diverge from the views of ordinary mortals in their answer to our second question. In fact, almost all philosophers seem to be agreed that there is a real table, they almost all agree that, however much our sense-data-colour, shape smoothness, etc.-may depend upon us, yet their occurrence is a sign of something

existing independently of us, something differing, perhaps, completely from our sense-data whenever we are in a suitable relation to the real table.

Now obviously this point in which the philosophers are agreed-the view that there is a real table, whatever its nature may be is vitally important, and it will be worthwhile to consider what reasons there are for accepting this view before we go on to the further question as to the nature of the real table. Our next chapter, therefore, will be concerned with the reasons for supposing that there is a real table at all.

Before we go farther it will be well to consider for a moment what it is that we have discovered so far. It has appeared that, if we take any common object of the sort that is supposed to be known by the senses, what the senses immediately tell us is not the truth about the object as it is apart from us, but only the truth about certain sensedata which, so far as we can see, depend upon the relations between us and the object. Thus what we directly see and feel is merely "appearance," which we believe to be a sign of some "reality" behind. But if the reality is not what appears, have we any means of knowing whether there is any reality at all? And if so, have

we any means of finding out what it is like?

Such questions are bewildering, and it is difficult to know that even the strangest hypotheses may not be true. Thus our familiar table, which has roused but the slightest thoughts in us hitherto, has become a problem full of surprising possibilities. The one thing we know about it is that it is not what it seems. Beyond this modest result, so far, we have the most complete liberty of conjecture. Leibniz tells us it is a community of souls: Berkeley tells us it is an idea in the mind of God; sober science, scarcely less wonderful, tells us it is a vast collection of electric charges in violent motion.

Among these surprising possibilities, doubt suggests that perhaps there is no table at all. Philosophy, if it cannot answer so many questions as we could wish, has at least the power of asking questions which increase the interest of the world, and show the strangeness and wonder lying just below the surface even in the commonest things of daily life.

11

In this chapter we have to ask ourselves whether, in any sense at all, there is such a thing as matter. Is there a table which has a certain intrinsic nature, and continues to exist when I am not looking, or is the table merely a product of my imagination, a dream-table in a very prolonged dream? This question is of the greatest importance. For if we cannot be sure of the independent existence of objects, we cannot be sure of the independent existence of other people's bodies, and therefore still less of other people's minds, since we have no grounds for believing in their minds except such as are derived from observing their bodies. Thus if we cannot be sure of the independent existence of objects, we shall be left alone in a desert-it may be that the whole outer world is nothing but a dream, and that we alone exist. This is an uncomfortable possibility; but although it cannot be strictly proved to be false, there is not the slightest reason to suppose that it is true. In this chapter we have to see why this is the case.

Before we embark upon doubtful matters, let us try to find some more or less fixed point from which to start. Although we are doubting the physical existence of the table, we are not doubting the existence of the sense-data which made us think there was a table; we are not doubting that, while we look, a certain colour and shape appear to us, and while we press, a certain sensation of hardness is experienced by us. All this, which is psychological, we are not calling in question. In fact, whatever else may be doubtful, some at least of our immediate experiences seem absolutely certain.

Descartes (1596-1650), the founder of modern philosophy, invented a method which may still be used with profit-the method of systematic doubt. He determined that he would believe nothing which he did not see quite clearly and distinctly to be true. Whatever he could bring himself to doubt, he would doubt, until he saw reason for not doubting it. By applying this method he gradually became convinced that the only existence of which he could be quite certain was his own. He imagined a deceitful demon, who presented unreal things to his

senses in a perpetual phantasmagoria; it might be very improbable that such a demon existed, but still it was possible, and therefore doubt concerning things perceived by the senses was possible.

But doubt concerning his own existence was not possible, for if he did not exist, no demon could deceive him. If he doubted, he must exist; if he had any experiences whatever, he must exist. Thus his own existence was an absolute certainty to him. "I think, therefore I am," he said (*Cogito, ergo sum*); and on the basis of this certainty he set to work to build up again the world of knowledge which his doubt had laid in ruins. By inventing the method of doubt, and by showing that subjective things are the most certain, Descartes performed a great service to

philosophy, and one which makes him still useful to all students of the subject.

But some care is needed in using Descartes' argument. "I think, therefore I am" says rather more than is strictly certain. It might seem as though we were quite sure of being the same person today as we were yesterday, and this is no doubt true in some sense. But the real Self is as hard to arrive at as the real table and does not seem to have that absolute, convincing certainty that belongs to particular experiences. When I look at my table and see a certain brown colour, what is quite certain at once is not "I am seeing a brown color," but rather, "a brown colour is being seen." This of course involves something (or somebody) which (or who) sees the brown colour; but it does not of itself involve that more or less permanent person whom we call "I." So far as immediate certainty goes, it might be that the something which sees the brown colour is quite momentary, and not the same as the something which has some different experience the next moment.

Thus it is our particular thoughts and feelings that have primitive certainty. And this applies to dreams and hallucinations as well as to normal perceptions: When we dream or see a ghost, we certainly do have the sensations we think we have, but for various reasons it is held that no physical object corresponds to these sensations. Thus the certainty of our knowledge of our own experiences does not have to be limited in any way to allow for exceptional cases. Here, therefore, we have, for what it is worth, a solid basis from which to begin our pursuit of knowledge.

The problem we have to consider is this: Granted that we are certain of our own sensedata, have we any reason for regarding them as signs of the existence of something else, which we can call the physical object? When we have enumerated all the sense-data which we should naturally regard as connected with the table have we said all there is to say about the table, or is there still something not a sense-datum, something which persists when we go out of the room? Common sense unhesitatingly answers that there is. What can be bought and sold and pushed about and have a cloth laid on it, and so on, cannot be a mere collection of sense-data. If the cloth completely hides the table, we shall derive no sense-data from the table, and therefore, if the table were merely sense-data, it would have ceased to exist, and the cloth would be suspended in empty air, resting, by a miracle, in the place where the table formerly was. This seems plainly absurd; but whoever wishes to become a philosopher must learn not to be frightened by absurdities.

One great reason why it is felt that we must secure a physical object in addition to the sensedata, is that we want the same object for different people. When ten people are sitting round a dinner-table, it seems preposterous to maintain that they are not seeing the same tablecloth, the same knives and forks and spoons and glasses. But the sense-data are private to each separate person; what is immediately present to the sight of one is not immediately present to the sight of another: They all see things from slightly different points of view, and therefore see them slightly differently. Thus, if there are to be public neutral objects, which can be in some sense known to many different people, there must be something over and above the private and particular sense-data which appear to various people. What reason, then, have we for believing that there are such public neutral objects?

The first answer that naturally occurs to one is that, although different people may see the table slightly differently, still they all see more

or less similar things when they look at the table, and the variations in what they see follow the laws of perspective and reflection of light, so that it is easy to arrive at a permanent object underlying all the different people's sense-data. I bought my table from the former

occupant of my room; I could not buy his sense-data, which died when he went away, but I could and did buy the confident expectation of more or less similar sense-data. Thus it is the fact that different people have similar sense-data, and that one person in a given place at different times has similar sense-data, which makes us suppose that over and above the sense-data there is a permanent public object which underlies or causes the sense-data of various people at various times.

Now insofar as the above considerations depend upon supposing that there are other people besides ourselves, they beg the very question at issue. Other people are represented to me by certain sense-data, such as the sight of them or the sound of their voices, and if I had no reason to believe that there were physical objects independent of my sense-data, I should have no reason to believe that other people exist except as part of my dream. Thus, when we are trying to show that there must be objects independent of our own sense-data, we cannot appeal to the testimony of other people, since this testimony itself consists of sense-data, and does not reveal other people's experiences unless our own sense-data are signs of things existing independently of us. We must therefore, if possible, find, in our own purely private experiences, characteristics which show, or tend to show, that there are in the world things other than ourselves and our private experiences.

In one sense it must be admitted that we can never prove the existence of things other than ourselves and our experiences. No logical absurdity results from the hypothesis that the world consists of myself and my thoughts and feelings and sensations, and that everything else is mere fancy. In dreams a very complicated world may seem to be present, and yet on waking we find it was a delusion; that is to say, we find that the sense-data in the dream do not appear to have corresponded with such physical objects as we should naturally infer from our sense-data. (It is true that, when the physical world is assumed, it is possible to find physical causes for the sense-data in dreams: A door banging, for instance, may cause us to dream of a naval engagement. But although, in this case, there is a physical cause for the sense-data, there is not a physical object corresponding to the sense-data in the way in which an actual naval battle would correspond.) There is no logical impossibility in the supposition that the whole of life is a dream, in which we ourselves create all the objects that come before us. But although this is not logically impossible, there is no reason whatever to suppose that it is true; and it is, in fact, a less simple hypothesis, viewed as a means of accounting for the facts of our own life, than the common-sense hypothesis that there really are objects independent of us, whose action on us causes our sensations.

The way in which simplicity comes in from supposing that there really are physical objects is easily seen. If the cat appears at one moment in one part of the room, and at another in another part, it is natural to suppose that it has moved from the one to the other, passing over a series of intermediate positions. But if it is merely a set of sense-data, it cannot have ever been in any place where I did not see it; thus we shall have to suppose that it did not exist at all while I was not looking, but suddenly sprang into being in a new place. If the cat exists whether I see it or not, we can understand from our own experience how it gets hungry between one meal and the next; but if it does not exist when I am not seeing it, it seems odd that appetite should grow during non-existence as fast as during existence. And if the cat consists only of sense-data, it cannot be hungry, since no hunger but my own can be a sense-datum to me. Thus the behaviour of the sense-data which represent the cat to me, though it seems quite natural when regarded as an expression of hunger, becomes utterly inexplicable when regarded as mere movements and changes of patches of colour, which are as incapable of hunger as triangle is of playing football.

But the difficulty in the case of the cat is nothing compared to the difficulty in the case of human beings. When human beings speak that is, when we hear certain noises which we associate with ideas, and simultaneously see certain motions of lips and expressions of face-it is very difficult to suppose that what we hear is not the expression of a thought, as we know it would be if we emitted the same sounds. Of course similar things happen in dreams, where we are mistaken as to the existence of other people. But dreams are more or less suggested by what we call waking life, and are capable of being more or less accounted for on scientific principles if we assume that there really is a physical world. Thus every principle of simplicity urges us to adopt the natural view, that there really are objects other than ourselves and our sense-data which have an existence not dependent upon our perceiving them.

Of course it is not by argument that we originally come by our belief in an independent external world. We find this belief ready in ourselves as soon as we begin to reflect: It is what may be called an instinctive belief. We should never have been led to question this belief but for the fact that, at any rate in the case of sight, it seems as if the sense-datum itself were instinctively believed to be the independent object, whereas argument shows that the object cannot be identical with the sense-datum. This discovery, however-which is not at all paradoxical in the case of taste and smell and sound, and only slightly so in the case of touch-leaves undiminished our instinctive belief that there are objects corresponding to our sense-data. Since this belief does not lead to any difficulties, but on the contrary tends to simplify and systematize our account of our experiences, there seems no good reason for rejecting it. We may therefore with a slight doubt derived from the external world does really exist, and is not wholly dependent for its existence upon our continuing to perceive it.

The argument which has led us to this conclusion is doubtless less strong than we could wish, but it is typical of many philosophical arguments, and it is therefore worthwhile to consider briefly its general character and validity. All knowledge, we find, must be built up upon our instinctive beliefs, and if these are rejected, nothing is left. But among our instinctive beliefs some are much stronger than others, while many have, by habit and association, become entangled with other beliefs, not really instinctive, but falsely supposed to be part of what is believed instinctively.

Philosophy should show us the hierarchy of our instinctive beliefs, beginning with those we hold most strongly, and presenting each as much isolated and as free from irrelevant additions as possible. It should take care to show that, in the form in which they are finally set forth, our instinctive beliefs do not clash, but form a harmonious system. There can never be any reason for rejecting one instinctive belief except that it clashes with others; thus, if they are found to harmonize, the whole system becomes worthy of acceptance.

It is of course possible that all or any of our beliefs may be mistaken, and therefore all ought to be held with at least some slight element of doubt. But we cannot have reason to reject a belief except on the ground of some other belief. Hence, by organizing our instinctive beliefs and their consequences, by considering which among them is most possible, if necessary, to modify or abandon, we can arrive, on the basis of accepting as our sole data what we instinctively believe, at an orderly systematic organization of our knowledge, in which, though the possibility of error remains, its likelihood is diminished by the interrelation of the parts and by the critical scrutiny which has preceded acquiescence.

This function, at least, philosophy can perform. Most philosophers, rightly or wrongly, believe that philosophy can do much more than this that it can give us knowledge, not otherwise attainable, concerning the universe as a whole, and concerning the nature of ultimate reality.

Whether this be the case or not, the more modest function we have spoken of can certainly be performed by philosophy, and certainly suffices, for those who have once begun to doubt the adequacy of common sense, to justify the arduous and difficult labours that philosophical problems involve.

The Causal Theory of Perception

JOHN LOCKE

John Locke (1632-1704) was one of the greatest of English philosophers. His empiricist theory of knowledge and natural rights political theory have had lasting influence.

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1. Concerning the simple ideas of Sensation, it is to be considered, that whatsoever is so constituted in nature as to be able, by affecting our senses, to cause any perception in the mind, doth thereby produce in the understanding a simple idea; which, whatever be the external cause of it, when it comes to be taken notice of by our discerning faculty, it is by the mind looked on and considered there to be a real positive idea in the understanding, as much as any other whatsoever; though, perhaps, the cause of it be but a privation of the subject.

2. Thus the ideas of heat and cold, light and darkness, white and black, motion and rest, are equally clear and positive ideas in the mind; though, perhaps, some of the causes which produce them are barely privations, in those subjects from whence our senses derive those ideas. These the understanding, in its view of them, considers all as distinct positive ideas, without taking notice of the causes that produce them: which is an inquiry not belonging to the idea, as it is in the understanding, but to the nature of the things existing without us. These are two very different things, and carefully to be distinguished; it being one thing to perceive and know the idea of white or black, and quite another to examine what kind of particles they must be, and how ranged in the superficies, to make any object appear white or black....

7. To discover the nature of our ideas the better, and to discourse of them intelligibly, it will be convenient to distinguish them as they are ideas or perceptions in our minds; and as they are modifications of matter in the bodies that cause such perceptions in us: that so we may not think (as perhaps usually is done) that they are exactly the images and resemblances of something inherent in the subject; most of those of sensation being in the mind no more the likeness of something existing without us, than the names that stand for them are the likeness of our ideas, which yet upon hearing they are apt to excite in us.

it again, and it retains still the same qualities; and so divide it on, till the parts become insensible; they must retain still each of them all those qualities. For division (which is all that a mill, or pestle, or any other body, does upon another, in reducing it to insensible parts) can never take away either solidity, extension, figure, or mobility from any body, but only makes two or more distinct separate masses of matter, of that which was but one before; all which distinct masses, reckoned as so many distinct bodies, after division, make a certain number. [These I call original or primary qualities of body, which I think we may observe to produce simple ideas in us, viz. solidity, extension, figure, motion or rest, and number.]

8. Whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call idea; and the power to produce any idea in our mind, I call quality of the subject wherein that

power is. Thus a snowball having the power to produce in us the ideas of white, cold, and round,-the power to produce those ideas in us, as they are in the snowball, I call qualities; and as they are sensations or perceptions in our understandings, I call them ideas; which ideas, if I speak of sometimes as in the things themselves, I would be understood to mean those qualities in the objects which produce them in us.

9. [Qualities thus considered in bodies are, First, such as are utterly inseparable from the body, in what state soever it be;] and such as in all the alterations and changes it suffers, all the force can be used upon it, it constantly keeps; and such as sense constantly finds in every particle of matter which has bulk enough to be perceived; and the mind finds inseparable from every particle of matter, though less than to make itself singly be perceived by our senses: e.g. Take a grain of wheat, divide it into two parts; each part has still solidity, extension, figure, and mobility: divide

10. Secondly, such qualities which in truth are nothing in the objects themselves but powers to produce various sensations in us by their primary qualities, i.e. by the bulk, figure, texture, and motion of their insensible parts, as colours, sounds, tastes, &c. These I call secondary qualities. To these might be added a third sort, which are allowed to be barely powers; though they are as much real qualities in the subject as those which I, to comply with the common way of speaking, call qualities, but for distinction, secondary qualities. For the power in fire to produce a new colour, or consistency, in wax or clay,-by its primary qualities, is as much a quality in fire, as the power it has to produce in me a new idea or sensation of warmth or burning, which I felt not before,-by the same primary qualities, viz. the bulk, texture, and motion of its insensible parts.]

11. [The next thing to be considered is, how bodies produce ideas in us; and that is manifestly by impulse, the only way which we can conceive bodies to operate in.]

12. If then external objects be not united to our minds when they produce ideas therein; and yet we perceive these original qualities in such of them as singly fall under our senses, it is evident that some motion must be thence continued by our nerves, or animal spirits, by some parts of our bodies, to the brains or the seat of sensation, there to produce in our minds the particular ideas we have of them. And since the extension, figure, number, and motion of

bodies of an observable bigness, may be perceived at a distance by the sight, it is evident some singly imperceptible bodies must come from them to the eyes, and thereby convey to the brain some motion; which produces these ideas which we have of them in us.

13. After the same manner that the ideas of these original qualities are produced in us, we may conceive that the ideas of secondary qualities are also produced, viz. by the operation of insensible particles on our senses. For, it being manifest that there are bodies and good store of bodies, each whereof are so small, that we cannot by any of our senses discover either their bulk, figure, or motion,-as is evident in the particles of the air and water, and others extremely smaller than those; perhaps as much smaller than the particles of air and water, as the particles of air and water are smaller than peas or hailstones;-let us suppose at present that the different motions and figures, bulk and number, of such particles, affecting the several organs of our senses, produce in us those different sensations which we have from the colours and smells of bodies; e.g. that a violet, by the impulse of such insensible particles of matter, of peculiar figures and bulks, and in different degrees and modifications of their motions, causes the ideas of the blue colour, and sweet scent of that flower to be produced in our minds. It being no more impossible to conceive that God should annex such ideas to such motions, with which they have no similitude, than that he should annex the idea of pain to the motion of a piece of steel dividing our flesh, with which

that idea hath no resemblance.

14. What I have said concerning colours and smells may be understood also of tastes and sounds, and other the like sensible qualities; which, whatever reality we by mistake attribute to them, are in truth nothing in the objects themselves, but powers to produce various sensations in us, and depend on those primary qualities, viz. bulk, figure, texture, and motion of parts [as I have said].

15. From whence I think it easy to draw this observation that the ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves, but the ideas produced in us by these secondary qualities have no resemblance of them at all. There is nothing like our ideas, existing the bodies themselves. They are, in the bodies we denominate from them, only a power to produce those sensations in us: and what is sweet, blue, or warm in idea, is but the certain bulk, figure, and motion of the insensible parts, in the bodies themselves, which we call so.

16. Flame is denominated hot and light; snow, white and cold; and manna, white and sweet, from the ideas they produce in us. Which qualities are commonly thought to be the same in those bodies that those ideas are in us, the one the perfect resemblance of the other, as they are in a mirror, and it would by most men be judged very extravagant if one should say otherwise. And yet he that will consider that the same fire that, at one distance produces in us the sensation of warmth, does, at a nearer approach, produce in us the far different sensation of pain, ought to bethink himself what reason he has to say that this idea of warmth, which was produced in him by the fire, is actually in the fire; and his idea of pain, which the same fire produced in him the same way, is not in the fire. Why are whiteness and coldness in snow, and pain not, when it produces the one and the other idea in us; and can do neither, but by the bulk, figure, number, and motion of its solid parts?

17. The particular bulk, number, figure, and motion of the parts of fire or snow are really in them, - whether any one's senses perceive them or no: and therefore they may be called real qualities, because they really exist in those bodies. But light, heat, whiteness, or coldness, are no more really in them than sickness or pain is in manna. Take away the sensation of them; let not the eyes see light or colours, nor the ears hear sounds; let the palate not taste, nor the nose smell, and all colours, tastes, odours, and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, i.e. bulk, figure, and motion of parts.

18. A piece of manna of a sensible bulk is able to produce in us the idea of a round or square figure; and by being removed from one place to another, the idea of motion. This idea of motion represents it as it really is in manna moving: a circle or square are the same, whether in idea or existence, in the mind or in the manna. And this, both motion and figure, are really in the manna, whether we take notice of them or no: this everybody is ready to agree to. Besides, manna, by the bulk, figure, texture, and motion of its parts, has a power to produce the sensations of sickness, and sometimes of acute pains or gripings in us. That these ideas of sickness and pain are not in the manna, but effects of its operations on us, and are nowhere when we feel them not; this also every one readily agrees to. And yet men are hardly to be brought to think that sweetness and whiteness are not really in manna; which are but the effects of the operations of manna, by the motion, size, and figure of its particles, on the eyes and palate: as the pain and sickness caused by manna are confessedly nothing but the effects of its operations on the stomach and guts, by the size, motion, and figure of its insensible parts, (for by nothing else can a body operate, as has been proved): as if it could not operate on the eyes and palate, and thereby produce in the mind particular distinct ideas, which in itself it has not, as well as we

allow it can operate on the guts and stomach, and thereby produce distinct ideas, which in itself it has not. These ideas, being all effects of the operations of manna on several parts of our bodies, by the size, figure, number, and motion of its parts;-why those produced by the eyes and palate should rather be thought to be really in the manna, than those produced by the stomach and guts; or why the pain and sickness, ideas that are the effect of manna, should be thought to be nowhere when they are not felt; and yet the sweetness and whiteness, effects of the same manna on other parts of the body, by ways equally as unknown, should be thought to exist in the manna, when they are not seen or tasted, would need some reason to explain.

19. Let us consider the red and white colours in porphyry. Hinder light from striking on it, and its colours vanish; it no longer produces any such ideas in us: upon the return of light it produces these appearances on us again. Can any one think any real alterations are made in the porphyry by the presence or absence of light; and that those ideas of whiteness and redness are really in porphyry in the light, when it is plain it has no colour in the dark? It has, indeed, such a configuration of particles, both night and day, as are apt, by the rays of light rebounding from some parts of that hard stone, to produce in us the idea of redness, and from others the idea of whiteness; but whiteness or redness are not in it at any time, but such a texture that hath the power to produce such a sensation in us.

20. Pound an almond, and the clear white colour will be altered into a dirty one, and the sweet taste into an oily one. What real alteration can the beating of the pestle make in any body, but an alteration of the texture of it?

21. Ideas being thus distinguished and understood, we may be able to give an account how the same water, at the same time, may produce the idea of cold by one hand and of heat by the other; whereas it is impossible that the same water, if those ideas were really in it, should at the same time be both hot and cold. For, if we imagine warmth, as it is in our hands, to be nothing but a certain sort and degree of motion in the minute particles of our nerves or animal spirits, we may understand how it is possible that the same water may, at the same time, produce the sensations of heat in one hand and cold in the other; which yet figure never does, that never producing the idea of a square by one hand which has produced the idea of a globe by another. But if the sensation of heat and cold be nothing but the increase or diminution of the motion of the minute parts of our bodies, caused by the corpuscles of any other body, it is easy to be understood, that if that motion be greater in one hand than in the other; if a body be applied to the two hands, which has in its minute particles a greater motion than in those of one of the hands, and a less than in those of the other, it will increase the motion of the one hand and lessen it in the other; and so cause the different sensations of heat and cold that depend thereon.

22. I have in what just goes before been engaged in physical inquiries a little further than perhaps I intended. But, it being necessary to

make the nature of sensation a little understood; and to make the difference between the qualities in bodies, and the ideas produced by them in the mind, to be distinctly conceived, without which it were impossible to discourse intelligibly of them;-I hope I shall be pardoned this little excursion into natural philosophy; it being necessary in our present inquiry to distinguish the primary and real qualities of bodies, which are always in them (viz. solidity, extension, figure, number, and motion, or rest, and are sometimes perceived by us, viz. when the bodies they are in are big enough singly to be discerned), from those secondary and imputed qualities, which are but the powers of several combinations of those primacy ones, when they operate without being distinctly discerned;-whereby we may also come to know what ideas are, and what are not, resemblances of something really existing in the bodies we denominate from

them.

23. The qualities, then, that are in bodies, rightly considered, are of three sorts:-

First, The bulk, figure, number, situation, and motion or rest of their solid parts. Those are in them, whether we perceive them or not; and when they are of that size that we can discover them, we have by these an idea of the thing as it is in itself; as is plain in artificial things. These I call primary qualities.

Secondly, The power that is in any body, by reason of its insensible primary qualities, to operate after a peculiar manner on any of our senses, and thereby produce in us the different ideas of several colours, sounds, smells, tastes, &c. These are usually called sensible qualities.

Thirdly, The power that is in any body, by reason of the particular constitution of its primary qualities, to make such a change in the bulk, figure, texture, and motion of another body, as to make it operate on our senses differently from what it did before. Thus the sun has a power to make wax white, and fire to make lead fluid. [These are usually called powers.]

The first of these, as has been said, I think may be properly called real, original, or primary qualities; because they are in the things themselves, whether they are perceived or not: and upon their different modifications it is that the secondary qualities depend.

The other two are only powers to act differently upon other things: which powers result from the different modifications of those primary qualities.

24. But, though the two latter sorts of qualities are powers barely, and nothing but powers, relating to several other bodies, and resulting from the different modifications of the original qualities, yet they are generally otherwise thought of. For the second sort, viz. the powers to produce several ideas in us, by our senses, are looked upon as real qualities in the things thus affecting us; but the third sort are called and esteemed barely powers, e.g., The idea of heat or light, which we receive by our eyes, or touch, from the sun, are commonly thought real qualities existing in the sun, and something more than mere powers in it. But when we consider the sun in reference to wax, which it melts or blanches, we look on the whiteness and softness produced in the wax, not as qualities in the sun, but effects produced by powers in it. Whereas, if rightly considered, these qualities of light and warmth, which are perceptions in me when I am warmed or enlightened by the sun, are no otherwise in the sun, than the changes made in the wax, when it is blanched or melted, are in the sun. They are all of them equally powers in the sun, depending on its primary qualities; whereby it is able, in the one case, so to alter the bulk, figure, texture, or motion of some of the insensible parts of my eyes or hands, as thereby to produce in me the idea of light or heat; and in the other, it is able so to alter the bulk, figure, texture, or motion of the insensible parts of the wax, as to make them fit to produce in me the distinct ideas of white and fluid.

25. The reason why the one are ordinarily taken for real qualities, and the other only for bare powers, seems to be, because the ideas we have of distinct colours, sounds, &c., containing nothing at all in them of bulk, figure, or motion, we are not apt to think them the effects of these primary qualities; which appear not, to our senses, to operate in their production, and with which they have not any apparent congruity or conceivable connexion. Hence it is that we are so forward to imagine, that those ideas are the

resemblances of something really existing in the objects themselves: since sensation discovers nothing of bulk, figure, or motion of parts in their production; nor can reason show how bodies, by their bulk, figure, and motion, should produce in the mind the ideas of blue or yellow, &c. But, in the other case, in the operations of bodies changing the qualities one of another, we plainly discover that the quality produced hath commonly no resemblance with

anything in the thing producing it; wherefore we look on it as a bare effect of power. For, through receiving the idea of heat or light from the sun, we are apt to think it is a perception and resemblance of such a quality in the sun; yet when we see wax, or a fair face, receive change of colour from the sun, we cannot imagine that to be the reception or resemblance of anything in the sun, because we find not those different colours in the sun itself. For, our senses being able to observe a likeness or unlikeness of sensible qualities in two different external objects, we forwardly enough conclude the production of any sensible quality in any subject to be an effect of bare power, and not the communication of any quality which was really in the efficient, when we find no such sensible quality in the thing that produced it. But our senses, not being able to discover any unlikeness between the idea produced in us, and the quality of the object producing it, we are apt to imagine that our ideas are resemblances of something in the objects, and not the effects of certain powers placed in the modification of their primary qualities, with which primary qualities the ideas produced in us have no resemblance.

26. To conclude. Beside those beforementioned primary qualities in bodies, viz. bulk, figure, extension, number; and motion of their solid parts; all the rest, whereby we take notice of bodies, and distinguish them one from another, are nothing else but several powers in them, depending on those primary qualities; whereby they are fitted, either by immediately operating on our bodies to produce several different ideas in us; or else, by operating on other bodies, so to change their primary qualities as to render them capable of producing ideas in us different from what before they did. The former of these, I think, may be called secondary qualities immediately perceivable; the latter, secondary qualities, mediately perceivable.

OF OUR KNOWLEDGE OF THE EXISTENCE OF OTHER THINGS

1. The knowledge of our own being we have by intuition. The existence of a God, reason clearly makes known to us, as has been shown.

The knowledge of the existence of any other thing we can have only by sensation: for there being no necessary connexion of real existence with any idea a man hath in his memory; nor of any other existence but that of God with the existence of any particular man: no particular man can know the existence of any other being, but only when, by actual operating upon him, it makes itself perceived by him. For, the having the idea of anything in our mind, no more proves the existence of that thing, than the picture of a man evidences his being in the world, or the visions of a dream make thereby a true history.

2. It is therefore the actual receiving of ideas from without that gives us notice of the existence of other things, and makes us know, that something doth exist at that time without us, which causes that idea in us; though perhaps we neither know nor consider how it does it. For it takes not from the certainty of our senses, and the ideas we receive by them, that we know not the manner wherein they are produced: e.g. whilst I write this, I have, by the paper affecting my eyes, that idea produced in my mind, which, whatever object causes, I call white; by which I know that that quality or accident (i.e. whose appearance before my eyes always causes that idea) Both really exist, and hath a being without me. And of this, the greatest assurance I can possibly have, and to which my faculties can attain, is the testimony of my eyes, which are the proper and sole judges of this thing; whose testimony I have reason to rely on as so certain, that I can no more doubt, whilst I write this, that I see white and black, and that something really exists that causes that sensation in me, than that I write or move my hand; which is a certainty as great as human nature is capable of, concerning the existence of anything, but a man's self alone, and of God.

3. The notice we have by our senses of the existing of things without us, though it be not

altogether so certain as our intuitive knowledge, or the deductions of our reason employed about the clear abstract ideas of our own minds; yet it is an assurance that deserves the name of knowledge. If we persuade ourselves that our faculties act and inform us right concerning the existence of those objects that affect them, it cannot pass for an illgrounded confidence: for I think nobody can, in earnest, be so sceptical as to be uncertain of the existence of those things which he sees and feels. At least, he that can doubt so far, (whatever he may have with his own thoughts,) will never have any controversy with me; since he can never be sure I say anything contrary to his own opinion. As to myself, I think God has given me assurance enough of the existence of things without me: since, by their different application, I can produce in myself both pleasure and pain, which is one great concernment of my present state. This is certain: the confidence that our faculties do not herein deceive us, is the greatest assurance we are capable of concerning the existence of material beings. For we cannot act anything but by our faculties; nor talk of knowledge itself, but by the help of those faculties which are fitted to apprehend even what knowledge is.

But besides the assurance we have from our senses themselves, that they do not err in the information they give us of the existence of things without us, when they are affected by them, we are further confirmed in this assurance by other concurrent reasons:-

4. I. It is plain those perceptions are produced in us by exterior causes affecting our senses: because those that want the organs of any sense, never can have the ideas belonging to that sense produced in their minds. This is too evident to be doubted: and therefore we cannot but be assured that they come in by the organs of that sense, and no other way. The organs themselves, it is plain, do not produce them: for then the eyes of a man in the dark would produce colours, and his nose smell roses in the winter: but we see nobody gets the relish of a pineapple, till he goes to the Indies, where it is, and tastes it.

5. II. Because sometimes I find that I cannot avoid the having those ideas produced in my mind. For though, when my eyes are shut, or windows fast, I can at pleasure recall to my mind the ideas of light, or the sun, which former sensations had lodged in my memory; so I can at pleasure lay by that idea, and take into my view that of the smell of a rose, or taste of sugar. But, if I turn my eyes at noon towards the sun, I cannot avoid the ideas which the light or sun then produces in me. So that there is a manifest difference between the ideas laid up in my memory, (over which, if they were there only, I should have constantly the same power to dispose of them, and lay them by at pleasure,) and those which force themselves upon me, and I cannot avoid having. And therefore it must needs be some exterior cause, and the brisk acting of some objects without me, whose efficacy I cannot resist, that produces those ideas in any mind, whether I will or no. Besides, there is nobody who doth not perceive the difference in himself between contemplating the sun, as he hath the idea of it in his memory, and actually looking upon it: of which two, his perception is so distinct, that few of his ideas are more distinguishable one from another. And therefore he hath certain knowledge that they are not both memory, or the actions of his mind, and fancies only within him; but that actual seeing hath a cause without.

6. III. Add to this, that many of those ideas are produced in us with pain, which afterwards we remember without the least offence. Thus, the pain of heat or cold, when the idea of it is revived in our minds, gives us no disturbance; which, when felt, was very troublesome; and is again, when actually repeated; which is occasioned by the disorder the external object causes in our bodies when applied to them: and we remember the pains of hunger, thirst, or the headache, without any pain at all; which would either never disturb us, or else constantly do it, as often as we thought of it, were there nothing more but ideas floating in our minds, and

appearances entertaining our fancies, without the real existence of things affecting us from abroad. The same may be said of pleasure, accompanying several actual sensations. And though mathematical demonstration depends not upon sense, yet

the examining them by diagrams gives great credit to the evidence of our sight, and seems to give it a certainty approaching to that of demonstration itself. For, it would be very strange, that a man should allow it for an undeniable truth, that two angles of a figure, which he measures by lines and angles of a diagram, should be bigger one than the other, and yet doubt of the existence of those lines and angles, which by looking on he makes use of to measure that by.

7. IV. Our senses in many cases bear witness to the truth of each other's report, concerning the existence of sensible things without us. He that sees a fire, may, if he doubt whether it be anything more than a bare fancy, feel it too; and be convinced, by putting his hand in it. Which certainly could never be put into such exquisite pain by a bare idea or phantom, unless that the pain be a fancy too: which yet he cannot, when the burn is well, by raising the idea of it, bring upon himself again.

Thus I see, whilst I write this, I can change the appearance of the paper; and by designing the letters, tell beforehand what new idea it shall exhibit the very next moment, by barely drawing my pen over it: which will neither appear (let me fancy as much as I will) if my hands stand still; or though I move my pen, if my eyes be shut: nor, when those characters are once made on the paper, can I choose afterwards but see them as they are; that is, have the ideas of such letters as I have made. Whence it is manifest, that they are not barely the sport and play of my own imagination, when I find that the characters that were made at the pleasure of my own thoughts, do not obey them; nor yet cease to be, whenever I shall fancy it, but continue to affect my senses constantly and regularly, according to the figures I made them. To which if we will add, that the sight of those shall, from another man, draw such sounds as I beforehand design they shall stand for, there will be little reason left to doubt that those words I write do really exist without me, when they cause a long series of regular sounds to affect my ears, which could not be the effect of my imagination, nor could my memory retain them in that order.

8. But yet, if after all this any one will be so sceptical as to distrust his senses, and to affirm that all we see and hear, feel and taste, think and do, during our whole being, is but the series and deluding appearances of a long dream, whereof there is no reality; and therefore will question the existence of all things, or our knowledge of anything: I must desire him to consider, that, if all be a dream, then he doth but dream that he makes the question, and so it is not much matter that a waking man should answer him. But yet, if he pleases, he may dream that I make him this answer, That the certainty of things existing in *rerum natura* when we have the testimony of our senses for it is not only as great as our frame can attain to, but as our condition needs. For, our faculties being suited not to the full extent of being, nor to a perfect, clear, comprehensive knowledge of things free from all doubt and scruple; but to the preservation of us, in whom they are; and accommodated to the use of life: they serve to our purpose well enough, if they will but give us certain notice of those things, which are convenient or inconvenient to us. For he that sees a candle burning, and hath experimented the force of its flame by putting his finger in it, will little doubt that this is something existing without him, which does him harm, and puts him to great pain: which is assurance enough, when no man requires greater certainty to govern his actions by than what is as certain as his actions themselves. And if our dreamer pleases to try whether the glowing heat of a glass furnace be barely a wandering imagination in a drowsy man's fancy, by putting his hand into it, he may perhaps be wakened into a certainty greater than he could wish, that it is something more than

bare imagination. So that this evidence is as great as we can desire, being as certain to us as our pleasure or pain, i.e. happiness or misery; beyond which we have no concernment, either of knowing or being. Such an assurance of the existence of things without us is sufficient to direct us in the attaining the good and avoiding the evil which is caused by them, which is the important concernment we have of being made acquainted with them.

9. In fine, then, when our senses do actually convey into our understandings any idea, we cannot but be satisfied that there doth something at that time really exist without us, which doth affect our senses, and by them give notice of itself to our

apprehensive faculties, and actually produce that idea which we then perceive: and we cannot so far distrust their testimony, as to doubt that such collections of simple ideas as we have observed by our senses to be united together, do really exist together. But this knowledge extends as far as the present testimony of our senses, employed about particular objects that do then affect them, and no further. For if I saw such a collection of simple ideas as is wont to be called man, existing together one minute since, and am now alone, I cannot be certain that the same man exists now, since there is no necessary connexion of his existence a minute since with his existence now: by a thousand ways he may cease to be, since I had the testimony of my senses for his existence. And if I cannot be certain that the man I saw last today is no-, in being, I can less be certain that he is so who hath been longer removed from my senses, and I have not seen since yesterday, or since the last year: and much less can I be certain of the existence of men that I never saw. And, therefore, though it be highly probable that millions of men do now exist, yet, whilst I am alone, writing this, I have not that certainty of it which we strictly call knowledge; though the great likelihood of it puts me past doubt, and it be reasonable for me to do several things upon the confidence that there are men (and men also of my acquaintance, with whom I have to do) now in the world: but this is but probability, not knowledge.

10. Whereby yet we may observe how foolish and vain a thing it is for a man of a narrow knowledge, who having reason given him to judge of the different evidence and probability of things, and to be swayed accordingly; how vain, I say, it is to expect demonstration and certainty in things not capable of it; and refuse assent to very rational propositions, and act contrary to very plain and clear truths, because they cannot be made out so evident, as to surmount every the least (I will not say reason, but) pretence of doubting. He that, in the ordinary affairs of life, would admit of nothing but direct plain demonstration, would be sure of nothing in this world, but of perishing quickly. The wholesomeness of his meat or drink would not give him reason to venture on it: and I would fain know what it is he could do upon such grounds as are capable of no doubt, no objection.

Of the Principles of Human Knowledge

GEORGE BERKELEY

George Berkeley (1685-1753), the Anglican Bishop of Cloyne, was born in Ireland.

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PART I

1. It is evident to anyone who takes a survey of the objects of human knowledge, that they are either ideas actually imprinted on the senses, or else such as are perceived by attending to the passions and operations of the mind, or lastly ideas formed by help of memory and imagination, either compounding, dividing, or barely representing those originally perceived in the aforesaid ways. By sight I have the ideas of light and colours with their several degrees and variations. By touch I perceive, for example, hard and soft, heat and cold, motion and resistance, and of all these more and less either as to quantity or degree. Smelling furnishes me with odours;

the palate with tastes, and hearing conveys sounds to the mind in all their variety of tone and composition. And as several of these are observed to accompany each other, they come to be marked by one name, and so to be reputed as one thing. Thus, for example, a certain colour, taste, smell, figure and consistence having been observed to go together, are accounted one distinct thing, signified by the name apple. Other collections of ideas constitute a stone, a tree, a book, and the like sensible things; which, as they are pleasing or disagreeable, excite the passions of love, hatred, joy, grief, and so forth.

2. But besides all that endless variety of ideas or objects of knowledge, there is likewise something which knows or perceives them, and exercises divers operations, as willing, imagining, remembering about them. This perceiving, active being is what I call mind, spirit, soul or myself. By which words I do not denote any one of my ideas, but a thing entirely distinct from them, wherein they exist, or, which is the same thing, whereby they are perceived; for the existence of an idea consists in being perceived.

3. That neither our thoughts, nor passions, nor ideas formed by the imagination, exist without the mind, is what everybody will allow. And it seems no less evident that the various sensations or ideas imprinted on the sense, however blended or combined together (that is, whatever objects they compose) cannot exist otherwise than in a mind perceiving them. I think an intuitive knowledge may be obtained of this, by anyone that shall attend to what is meant by the term exist when applied to sensible things. The table I write on, I say, exists, that is, I see and feel it; and if I were out of my study I should say it existed, meaning thereby that if I was in my study I might perceive it, or that some other spirit actually does perceive it. There was an odour, that is, it was smelled; there was a sound, that is to say, it was heard; a colour or figure, and it was perceived by sight or touch. This is all that I can understand by these and the like expressions. For as to what is said of the absolute existence of unthinking things without any relation to their being perceived, that seems perfectly unintelligible. Their *esse* is *percipi*, nor is it possible they should have any existence, out of the minds or thinking things which perceive them.

4. It is indeed an opinion strangely prevailing amongst men, that houses, mountains, rivers, and in a word all sensible objects have an existence natural or real, distinct from their being perceived by the understanding. But with how great an assurance and acquiescence soever this principle may be entertained in the world; yet whoever shall find in his heart to call it in question, may, if I mistake not, perceive it to involve a manifest contradiction. For what are the forementioned objects but the things we perceive by sense, and what do we perceive besides our own ideas or sensations; and is it not plainly repugnant that any one of these or any combination of them should exist unperceived?

5. If we thoroughly examine this tenet, it will, perhaps, be found at bottom to depend on the doctrine of abstract ideas. For can there be a nicer strain of abstraction than to distinguish the existence of sensible objects from their being perceived, so as to conceive them existing unperceived? Light and colours, heat and cold, extension and figures, in a word the things we see and feel, what are they but so many sensations, notions, ideas or impressions on the sense; and is it possible to separate, even in thought, any of these from perception? For my part I might as easily divide a thing from itself. I may indeed divide in my thoughts or conceive apart from each other those things which, perhaps, I never perceived by sense so divided. Thus I imagine the trunk of a human body without the limbs, or conceive the smell of a rose without thinking on the rose itself. So far I will not deny I can abstract, if that may properly be called abstraction, which extends only to the conceiving separately such objects, as it is possible may really exist or be

actually perceived asunder. But my conceiving or imagining power does not extend beyond the possibility of real existence or perception. Hence as it is impossible for me to see or feel anything without an actual sensation of that thing, so is it impossible for me to conceive in my thoughts any sensible thing or object distinct from the sensation or perception of it.

6. Some truths there are so near and obvious to the mind, that a man need only open his eyes to see them. Such I take this important one to be, to wit, that all the choir of heaven and furniture of the earth, in a word all those bodies which compose the mighty frame of the world, have not any subsistence, without a mind, that their being is to be perceived or known; that consequently so long as they are not actually perceived by me, or do not exist in my mind or that of any other created spirit, they must either have no existence at all, or else subsist in the mind of some eternal spirit: it

being perfectly unintelligible and involving all the absurdity of abstraction, to attribute to any single part of them an existence independent of a spirit. To be convinced of which, the reader need only reflect and try to separate in his own thoughts the being of a sensible thing from its being perceived.

7. From what has been said, it follows, there is not any other substance than spirit, or that which perceives. But for the fuller proof of this point, let it be considered, the sensible qualities are colour, figure, motion, smell, taste, and such like, that is, the ideas perceived by sense. Now for an idea to exist in an unperceiving thing, is a manifest contradiction; for to have an idea is all one as to perceive; that therefore wherein colour, figure, and the like qualities exist, must perceive them; hence it is clear there can be no unthinking substance or substratum of those ideas.

8. But say you, though the ideas themselves do not exist without the mind, yet there may be things like them whereof they are copies or resemblances, which things exist without the mind, in an unthinking substance. I answer, an idea can be like nothing but an idea; a colour or figure can be like nothing but another colour or figure. If we look but ever so little into our thoughts, we shall find it impossible for us to conceive a likeness except only between our ideas. Again, I ask whether these supposed originals or external things, of which our ideas are the pictures or representations, be themselves perceivable or no? If they are, then they are ideas, and we have gained our point; but if you say they are not, I appeal to anyone whether it be sense, to assert a colour is like something which is invisible, hard or soft, like something which is intangible; and so of the rest.

9. Some there are who make a distinction betwixt primary and secondary qualities: by the former, they mean extension, figure, motion, rest, solidity or impenetrability and number: by the latter they denote all other sensible qualities, as colours, sounds, tastes, and so forth. The ideas we have of these they acknowledge not to be the resemblances of anything existing without the mind or unperceived; but they will have our ideas of the primary qualities to be patterns or images of things which exist without the mind, in an unthinking substance which they call matter. By matter therefore we are to understand an inert, senseless substance, in which extension, figure, and motion, do actually subsist. But it is evident from what we have already shewn, that extension, figure and motion are only ideas existing in the mind, and that an idea can be like nothing but another idea, and that consequently neither they nor their archetypes can exist in an unperceiving substance. Hence it is plain, that the very notion of what is called matter or corporeal substance, involves a contradiction in it.

10. They who assert that figure, motion, and the rest of the primary or original qualities do exist without the mind, in unthinking substances, do at the same time acknowledge that

colours, sounds, heat, cold, and such like secondary qualities, do not, which they tell us are sensations existing in the mind alone, that depend on and are occasioned by the different size, texture and motion of the minute particles of matter. This they take for an undoubted truth, which they can demonstrate beyond all exception. Now if it be certain, that those original qualities are inseparably united with the other sensible qualities, and not, even in thought, capable of being abstracted from them, it plainly follows that they exist only in the mind. But I desire anyone to reflect and try, whether he can by any abstraction of thought, conceive the extension and motion of a body, without all other sensible qualities. For my own part, I see evidently that it is not in my power to frame an idea of a body extended and moved, but I must withal give it some colour or other sensible quality which is acknowledged to exist only in the mind. In short, extension, figure, and motion, abstracted from all other qualities, are inconceivable. Where therefore the other sensible qualities are, there must these be also, to wit, in the mind and nowhere else.

11. Again, great and small, swift and slow, are allowed to exist nowhere without the mind, being entirely relative, and changing as the frame or position of the organs of sense varies. The extension therefore which exists without the mind, is neither great nor small, the motion neither swift nor slow, that is, they are nothing

at all. But say you, they are extension in general, and motion in general; thus we see how much the tenet of extended, moveable substances existing without the mind, depends on that strange doctrine of abstract ideas. And here I cannot but remark, how nearly the vague and indeterminate description of matter or corporeal substance, which the modern philosophers are run into by their own principles, resembles that antiquated and so much ridiculed notion of *materia prima*, to be met with in Aristotle and his followers. Without extension solidity cannot be conceived; since therefore it has been shewn that extension exists not in an unthinking substance, the same must also be true of solidity.

12. That number is entirely the creature of the mind, even though the other qualities be allowed to exist without, will be evident to whoever considers, that the same thing bears a different denomination of number as the mind views it with different respects. Thus, the same extension is one or three or thirty-six, according as the mind considers it with reference to a yard, a foot, or an inch. Number is so visibly relative, and dependent on men's understanding, that it is strange to think how anyone should give it an absolute existence without the mind. We say one book, one page, one line; all these are equally units, though some contain several of the others. And in each instance it is plain, the unit relates to some particular combination of ideas arbitrarily put together by the mind.

13. Unity I know some will have to be a simple or uncompounded idea, accompanying all other ideas into the mind. That I have any such idea answering the word unity, I do not find; and if I had, methinks I could not miss finding it; on the contrary it should be the most familiar to my understanding, since it is said to accompany all other ideas, and to be perceived by all the ways of sensation and reflexion. To say no more, it is an abstract idea.

14. I shall farther add, that after the same manner, as modern philosophers prove certain sensible qualities to have no existence in matter, or without the mind, the same thing may be likewise proved of all other sensible qualities whatsoever. Thus, for instance, it is said that heat and cold are affections only of the mind, and not at all patterns of real beings, existing in the corporeal substances which excite them, for that the same body which appears cold to one hand, seems warm to another. Now why may we not as well argue that figure and extension are not patterns or resemblances of qualities existing in matter, because to the same eye at different stations, or eyes of a different texture at the same station, they appear various, and cannot

therefore be the images of anything settled and determinate without the mind? Again, it is proved that sweetness is not really in the sapid thing because the thing remaining unaltered the sweetness is changed into bitter, as in case of a fever or otherwise vitiated palate. Is it not as reasonable to say, that motion is not without the mind, since if the succession of ideas in the mind become swifter, the motion, it is acknowledged, shall appear slower without any alteration in any external object.

15. In short, let anyone consider those arguments, which are thought manifestly to prove that colours and tastes exist only in the mind, and he shall find they may with equal force, be brought to prove the same thing of extension, figure, and motion? Though it must be confessed this method of arguing doth not so much prove that there is no extension or colour in an outward object, as that we do not know by sense which is the true extension or colour of the object. But the arguments foregoing plainly shew it to be impossible that any colour or extension at all, or other sensible quality whatsoever, should exist in an unthinking subject without the mind, or in truth, that there should be any such thing as an outward object.

16. But let us examine a little the received opinion. It is said extension is a mode or accident of matter, and that matter is the substratum that supports it. Now I desire that you would explain what is meant by matter's supporting extension: say you, I have no idea of matter, and therefore cannot explain it. I answer, though you have no positive, yet if you have any meaning at all, you must at least have a relative idea of matter; though you know not what it is, yet you must be supposed to know what relation it bears to accidents, and what is meant by its supporting them. It is evident support cannot here be taken

in its usual or literal sense, as when we say that pillars support a building: in what sense therefore must it be taken?

17. If we inquire into what the most accurate philosophers declare themselves to mean by material substance; we shall find them acknowledge, they have no other meaning annexed to those sounds, but the idea of being in general, together with the relative notion of its supporting accidents. The general idea of being appeareth to me the most abstract and incomprehensible of all other; and as for its supporting accidents, this, as we have just now observed, cannot be understood in the common sense of those words; it must therefore be taken in some other sense, but what that is they do not explain. So that when I consider the two parts or branches which make the signification of the words material substance, I am convinced there is no distinct meaning annexed to them. But why should we trouble ourselves any farther, in discussing this material substratum or support of figure and motion, and other sensible qualities? Does it not suppose they have an existence without the mind? And is not this a direct repugnancy, and altogether inconceivable?

18. But though it were possible that solid, figured, moveable substances may exist without the mind, corresponding to the ideas we have of bodies, yet how is it possible for us to know this? Either we must know it by sense, or by reason. As for our senses, by them we have the knowledge only of our sensations, ideas, or those things that are immediately perceived by sense, call them what you will: but they do not inform us that things exist without the mind, or unperceived, like to those which are perceived. This the materials themselves acknowledge. It remains therefore that if we have any knowledge at all of external things, it must be by reason, inferring their existence from what is immediately perceived by sense. But what reason can induce us to believe the existence of bodies without the mind, from what we perceive, since the very patrons of matter themselves do not pretend, there is any necessary connexion betwixt them and our ideas? I say it is granted on all hands (and what happens in dreams, phrensies, and the

like, puts it beyond dispute) that it is possible we might be affected with all the ideas we have now, though no bodies existed without, resembling them. Hence it is evident the supposition of external bodies is not necessary for the producing our ideas: since it is granted they are produced sometimes, and might possibly be produced always in the same order we see them in at present, without their concurrence.

19. But though we might possibly have all our sensations without them, yet perhaps it may be thought easier to conceive and explain the manner of their production, by supposing external bodies in their likeness rather than otherwise; and so it might be at least probable there are such things as bodies that excite their ideas in our minds. But neither can this be said; for though we give the materialists their external bodies, they by their own confession are never the nearer knowing how our ideas are produced; since they own themselves unable to comprehend in what manner body can act upon spirit, or how it is possible it should imprint any idea in the mind. Hence it is evident the production of ideas or sensations in our minds, can be no reason why we should suppose matter or corporeal substances, since that is acknowledged to remain equally inexplicable with, or without this supposition. If therefore it were possible for bodies to exist without the mind, yet to hold they do so, must needs be a very precarious opinion; since it is to suppose, without any reason at all, that God has created innumerable beings that are entirely useless, and sere to no manner of purpose.

20. In short, if there were external bodies, it is impossible we should ever come to know it; and if there were not, we might have the very same reasons to think there were that we have now. Suppose, what no one can deny possible, an intelligence, without the help of external bodies, to be affected with the same train of sensations or ideas that you are, imprinted in the same order and with like vividness in his mind. I ask whether that intelligence hath not all the reason to believe the existence of corporeal substances, represented by his ideas, and exciting them in his mind, that you can possibly have for believing the same thing? Of this there can be no question; which one consideration is enough to make any reasonable person suspect the strength of whatever arguments he may think himself to have, for the existence of bodies without the mind.

21. Were it necessary to add any farther proof against the existence of matter, after what has been said, I could instance several of those errors and difficulties (not to mention impieties) which have sprung from that tenet. It has occasioned numberless controversies and disputes in philosophy, and not a few of far greater moment in religion. But I shall not enter into the detail of them in this place, as well because I think, arguments a posteriori are unnecessary for confirming what has been, if I mistake not, sufficiently demonstrated a priori, as because I shall hereafter find occasion to say somewhat of them.

22. I am afraid I have given cause to think me needlessly prolix in handling this subject. For to what purpose is it to dilate on that which may be demonstrated with the utmost evidence in a line or two, to anyone that is capable of the least reflexion? It is but looking into your own thoughts, and so trying whether you can conceive it possible for a sound, or figure, or motion, or colour, to exist without the mind, or unperceived. This easy trial may make you see, that what you contend for, is a downright contradiction. Insomuch that I am content to put the whole upon this issue; if you can but conceive it possible for one extended moveable substance, or in general, for any one idea or anything like an idea, to exist otherwise than in a mind perceiving it, I shall readily give up the cause: and as for all that compages of external bodies which you contend for, I shall grant you its existence, though you cannot either give me any reason why you believe it exists, or assign any use to it when it is supposed to exist. I say, the bare possibility of your

opinion's being true, shall pass for an argument that it is so.

23. But you say, surely there is nothing easier than to imagine trees, for instance, in a park, or books existing in a closet, and nobody by to perceive them. I answer, you may so, there is no difficulty in it: but what is all this, I beseech you, more than framing in your mind certain ideas which you call books and trees, and at the same time omitting to frame the idea of anyone that may perceive them? But do not you yourself perceive or think of them all the while? This therefore is nothing to the purpose: it only shows you have the power of imagining or forming ideas in your mind; but it doth not shew that you can conceive it possible, the objects of your thought may exist without the mind: to make out this, it is necessary that you conceive them existing unconceived or unthought of, which is a manifest repugnancy. When we do our utmost to conceive the existence of external bodies, we are all the while only contemplating our own ideas. But the mind taking no notice of itself, is deluded to think it can and cloth conceive bodies existing unthought of or without the mind; though at the same time they are apprehended by or exist in itself. A little attention will discover to anyone the truth and evidence of what is here said, and make it unnecessary to insist on any other proofs against the existence of material substance.

24. It is very obvious, upon the least inquiry into our own thoughts, to know whether it be possible for us to understand what is meant, by the absolute existence of sensible objects in themselves, or without the mind. To me it is evident those words mark out either a direct contradiction, or else nothing at all. And to convince others of this, I know no readier or fairer way, than to entreat they would calmly attend to their own thoughts: and if by this attention, the emptiness or repugnancy of those expressions does appear, surely nothing more is requisite for their conviction. It is on this therefore that I insist, to wit, that the absolute existence of unthinking things are words without a meaning, or which include a contradiction. This is what I repeat and inculcate, and earnestly recommend to the attentive thoughts of the reader.

25. All our ideas, sensations, or the thing which we perceive, by whatsoever names they may be distinguished, are visibly inactive, there is nothing of power or agency included in them. So that one idea or object of thought cannot produce, or make any alteration in another. To be satisfied of the truth of this, there is nothing else requisite but a bare observation of our ideas. For since they and every part of them exist only in the mind, it follows that there is

nothing in them but what is perceived. But whoever shall attend to his ideas, whether of sense or reflexion, will not perceive in them any power or activity; there is therefore no such thing contained in them. A little attention will discover to us that the very being of an idea implies passiveness and inertness in it, insomuch that it is impossible for an idea to do anything, or, strictly speaking, to be the cause of anything: neither can it be the resemblance or pattern of any active being, as is evident from Sect. 8. Whence it plainly follows that extension, figure and motion, cannot be the cause of our sensations. To say therefore, that these are the effects of powers resulting from the configuration, number, motion, and size of corpuscles, must certainly be false.

26. We perceive a continual succession of ideas, some are a new excited, others are changed or totally disappear. There is therefore some cause of these ideas whereon they depend, and which produces and changes them. That this cause cannot be any quality or idea or combination of ideas, is clear from the preceding section. It must therefore be a substance; but it has been shewn that there is no corporeal or material substance; it remains therefore that the cause of ideas is an incorporeal active substance or spirit.

27. A spirit is one simple, undivided, active being: as it perceives ideas, it is called the

understanding, and as it produces or otherwise operates about them, it is called the will. Hence there can be no idea formed of a soul or spirit: for all ideas whatever, being passive and inert, vide Sect. 25, they cannot represent unto us, by way of image or likeness, that which acts. A little attention will make it plain to anyone, that to have an idea which shall be like that active principle of motion and change of ideas, is absolutely impossible. Such is the nature of spirit or that which acts, that it cannot be of itself perceived, but only by the effects which it produceth. If any man shall doubt of the truth of what is here delivered, let him but reflect and try if he can frame the idea of any power or active being; and whether he hath ideas of two principal powers, marked by the names will and understanding, distinct from each other as well as from a third idea of substance or being in general, with a relative notion of its supporting or being the subject of the aforesaid powers, which is signified by the name soul or spirit. This is what some hold; but so far as I can see, the words will, soul, spirit, do not stand for different ideas, or in truth, for any idea at all, but for something which is very different from ideas, and which being an agent cannot be like unto, or represented by, any idea whatsoever. Though it must be owned at the same time, that we have some notion of soul, spirit, and the operations of the mind, such as willing loving, hating, in as much as we known or understand the meaning of those words.

28. I find I can excite ideas in my mind at pleasure, and vary and shift the scene as oft as I think fit. It is no more than willing, and straightway this or that idea arises in my fancy: and by the same power it is obliterated, and makes way for another. This making and unmaking of ideas doth very properly denominate the mind active. Thus much is certain, and grounded on experience: but when we talk of unthinking agents, or of exciting ideas exclusive of volition, we only amuse ourselves with words.

29. But whatever power I may have over my own thoughts, I find the ideas actually perceived by sense have not a like dependence on my will. When it broad day-light I open my eyes, it is not in my power to choose whether I shall see or no, or to determine what particular objects shall present themselves to my view; and so likewise as to the hearing and other senses, the ideas imprinted on them are not creatures of my will. There is therefore some other will or spirit that produces them.

30. The ideas of sense are more strong, lively, and distinct than those of the imagination; they have likewise a steadiness, order, and coherence, and are not excited at random, as those which are the effects of human wills often are, but in a regular train or series, the admirable connexion whereof sufficiently testifies the wisdom and benevolence of its Author. Now the set rules or established methods, wherein the mind we depend on excites in us the ideas of sense, are called the Laws of Nature: and these we learn by experience, which teaches

us that such and such ideas are attended with such and such other ideas, in the ordinary course of things.

31. This gives us a sort of foresight, which enables us to regulate our actions for the benefit of the life. And without this we should be eternally at a loss: we could not know how to act anything that might procure us the least pleasure, or remove the least pain of sense. That food nourishes, sleep refreshes, and fire warms us; that to sow in the seed-time is the way to reap in the harvest, and, in general, that to obtain such or such ends, such or such means are conducive, all this we know, not by discovering any necessary connexion between our ideas, but only by the observation of the settled Laws of Nature, without which we should be all in uncertainty and confusion, and a grown man no more know how to manage himself in the affairs of life, than an infant just born.

32. And yet this consistent uniform working, which so evidently displays the goodness

and wisdom of that governing spirit whose will constitutes the Laws of Nature, is so far from leading our thoughts to him, that it rather sends them a wandering after second causes. For when we perceive certain ideas of sense constantly followed by other ideas, and we know this is not of our doing, we forthwith attribute power and agency to the ideas themselves, and make one the cause of another, than which nothing can be more absurd and unintelligible. Thus, for example, having observed that when we perceive by sight a certain round luminous figure, we at the same time perceive by touch the idea of sensation called heat, we do from thence conclude the sun to be the cause of heat. And in like manner perceiving the motion and collision of bodies to be attended with sound, we are inclined to think the latter an effect of the former.

33. The ideas imprinted on the senses by the Author of Nature are called real things: and those excited in the imagination being less regular, vivid and constant, are more properly termed ideas, or images of things, which they copy and represent. But then our sensations, be they never so vivid and distinct, are nevertheless ideas, that is, they exist in the mind, or are perceived by it, as truly as the ideas of its own framing. The ideas of sense are allowed to have more reality in them, that is, to be more strong, orderly, and coherent than the creatures of the mind; but this is no argument that they exist without the mind. They are also less dependent on the spirit, or thinking substance which perceives them, in that they are excited by the will of another and more powerful spirit: yet still they are ideas, and certainly no idea, whether faint or strong, can exist otherwise than in a mind perceiving it.

34. Before we proceed any farther, it is necessary to spend some time in answering objections which may probably be made against the principles hitherto laid down. In doing of which, if I seem too prolix of those of quick apprehensions, I hope it may be pardoned, since all men do not equally apprehend things of this nature; and I am willing to be understood by everyone. First then, it will be objected that by the foregoing principles, all that is real and substantial in Nature is banished out of the world: and instead a chimerical scheme of ideas takes place. All things that exist, exist only in the mind, that is, they are purely notional. What therefore becomes of the sun, moon, and stars? What must we think of houses, rivers, mountains, trees, stones; nay, even of our own bodies? Are all these but so many chimeras and illusions on the fancy? To all which, and whatever else of the same sort may be objected, I answer, that by the principles premised, we are not deprived of any one thing in Nature. Whatever we see, feel, hear or any wise conceive or understand, remains as secure as ever, and is as real as ever. There is a rerum natures, and the distinction between realities and chimeras retains its full force. This is evident from Sect. 29, 30, and 33, where we have shewn what is meant by real things in opposition to chimeras, or ideas of our own framing; but then they

both equally exist in the mind, and in that sense are alike ideas.

35. I do not argue against the existence of any one thing that we can apprehend, either by sense or reflexion. That the things I see with mine eyes and touch with my hands do exist, really exist, I make not the least question. The only thing whose existence we deny, is that which philosophers call matter or corporeal substance. And in doing of this, there is no damage done to the rest of mankind, who, I dare say, will never miss it. The atheist indeed will want the colour of an empty name to support this impiety; and the philosophers may possibly find, they have lost a great handle for trifling and disputation.

36. If any man thinks this detracts from the existence or reality of things, he is very far from understanding what hath been premised in the plainest terms I could think of. Take here an abstract of what has been said. There are spiritual substances, minds, or human souls, which will or excite ideas in themselves at pleasure: but these are faint, weak, and unsteady in respect of

others they perceive by sense, which being impressed upon them according to certain rules or laws of Nature, speak themselves the effects of a mind more powerful and wise than human spirits. These latter are said to have more reality in them than the former: by which is meant that they are more affecting, orderly, and distinct, and that they are not fictions of the mind perceiving them. And in this sense, the sun that I see by day is the real sun, and that which I imagine by night is the idea of the former. In the sense here given of reality, it is evident that every vegetable, star, mineral, and in general each part of the mundane system, is as much a real being by our principles as by any other. Whether others mean anything by the term reality different from what I do, I entreat them to look into their own thoughts and see.

Of the Existence of a Material World

THOMAS REID

Thomas Reid (1710-1796) was, next to Hume, the most influential Scottish philosopher.

From Thomas Reid, *Inquiry into the Human Mind on the Principles of Common Sense*, Chapter V, Section VII. First published in 1764.

It is beyond our power to say when, or in what order, we came by our notions of these qualities. When we trace the operations of our minds as far back as memory and reflection can carry us, we find them already in possession of our imagination and belief, and quite familiar to the mind: but how they came first into acquaintance, or what has given them so strong a hold of our belief, and what regard they deserve, are, no doubt, very important questions in the philosophy of human nature.

Shall we, with the Bishop of Cloyne, I serve them with a quo warranto,² and have them tried at the bar of philosophy, upon the statute of the ideal system? a Indeed, in this trial they seem to have come off very pitifully; for, although they had very able counsel, learned in the lawviz., Descartes, Malebranche, and Locke, who said everything they could for their clients-the Bishop of Cloyne, believing them to be aiders and abettors of heresy and schism, prosecuted them with great vigour, fully answered all that had been pleaded in their defence, and silenced their ablest advocates, who seem, for half a century past, to decline the argument, and to trust to the favour of the jury rather than to the strength of their pleadings.

Thus, the wisdom of philosophy is set in opposition to the common sense of mankind. The first pretends to demonstrate, a priori, that there can be no such thing as a material world; that sun, moon, stars, and earth, vegetable and animal bodies, are, and can be nothing else, but sensations in the mind, or images of those sensations in the memory and imagination; that, like pain and joy, they can have no existence when they are not thought of. The last can conceive no otherwise of this opinion, that as a kind of metaphysical lunacy, and concludes that too much learning is apt to make men mad; and that the man who seriously entertains this belief, though in other respects he may be a very good man, as a man may be who believes that he is made of glass; yet, surely he hath a soft place in his understanding, and hath been hurt by much thinking.

esteems true wisdom and philosophy, will not be fond, nay, will be very suspicious, of such strange and paradoxical opinions. If they are false, they disgrace philosophy; and, if they are true, they degrade the human species, and make us justly ashamed of our frame. This opposition betwixt philosophy and common sense is apt to have a very unhappy influence upon the philosopher himself. He sees human nature in an odd, unamiable, and mortifying light. He considers himself, and the rest of his species, as born under a necessity of believing ten thousand absurdities and contradictions, and endowed with such a pittance of reason as is just sufficient to make this unhappy discovery: and this is all the fruit of his profound speculations. Such notions of human nature tend to slacken every nerve of the soul, to put every noble purpose and

sentiment out of countenance, and spread a melancholy gloom over the whole face of things.

If this is wisdom let me be deluded with the vulgar. I find something within me that recoils against it, and inspires more reverent sentiments of the human kind, and of the universal administration. Common Sense and Reason have both one author; that Almighty Author in all whose other works we observe a consistency, uniformity, and beauty which charm and delight the understanding: there must, therefore, be some order and consistency in the human faculties, as well as in other parts of his workmanship. A man that thinks reverently of his own kind, and

To what purpose is it for philosophy to decide against common sense in this or any other matter? The belief of a material world is older, and of more authority, than any principles of philosophy. It declines the tribunal of reason, and laughs at all the artillery of the logician. It retains its sovereign authority in spite of all the edicts of philosophy, and reason itself must stoop to its orders. Even those philosophers who have disowned the authority of our notions of an external material world, confess that they find themselves under a necessity of submitting to their power.

Methinks, therefore, it were better to make a virtue of necessity; and, since we cannot get rid of the vulgar notion and belief of an external world, to reconcile our reason to it as well as we can; for, if Reason should stomach and fret ever so much at this yoke, she cannot throw it off; if she will not be the servant of Common Sense, she must be her slave.

In order, therefore, to reconcile Reason to Common Sense in this matter, I beg leave to offer to the consideration of philosophers these two observations. First, that, in all this debate about the existence of a material world, it hath been taken for granted on both sides, that this same material world, if any such there be, must be the express image of our sensations; that we can have no conception of any material thing which is not like some sensation in our minds; and particularly that the sensations of touch are images of extension, hardness, figure, and motion. Every argument brought against the existence of a material world, either by the Bishop of Cloyne, or by the author of the "Treatise of Human Nature,"ⁱ⁴ by supposeth this. If this is true, their arguments are conclusive and unanswerable; but, on the other hand, if it is not true, there is no shadow of argument left. Have those philosophers, then, given any solid proof of this hypothesis, upon which the whole weight of so strange a system rests? No. They have not so

much as attempted to do it. But, because ancient and modern philosophers have agreed in this opinion, they have taken it for granted. But let us, as becomes philosophers, lay aside authority; we need not, surely, consult Aristotle or Locke, to know whether pain be like the point of a sword. I have as clear a conception of extension, hardness, and motion, as I have of the point of sword; and, with some pains and practice, I can form as clear a notion of the other sensations of touch as I have of pain. When I do so, and compare them together, it appears to me clear as daylight, that the former are not of kin to the latter, nor-resemble them in any one feature. They are as unlike, yea as certainly and manifestly unlike, as pain is to the point of a sword. It may be true, that those sensations first introduced the material world to our acquaintance; it may be true, that it seldom or never appears without their company; but, for all that, they are as unlike as the passion of anger is to those features of the countenance which attend it.

So that, in the sentence those philosophers have passed against the material world, there is an error personae.s Their proof touches not mat ter, or any of its qualities; but strikes directly against an idol of their own imagination, a material world made of ideas and sensations, which never had nor can have an existence.

Secondly, the very existence of our conceptions of extension, figure and motion, since they are neither ideas of sensation nor reflection, overturns the whole ideal system, by which the

material world hath been tried and condemned so that there hath been likewise in this sentence an error juris. e

It is a very fine and just observation of Locke, that, as no human art can create a single particle of matter, and the whole extent of our power over the material world consists in compounding, combining, and disjoining the matter made to our hands; so, in the world of thought, the materials are all made by nature, and can only be variously combined and disjoined by us. So that it is impossible for reason or prejudice, true or false philosophy, to produce one simple notion or conception, which is not the work of nature, and the result of our constitution. The conception of extension, motion, and the other attributes of matter, cannot be the effect of error or prejudice; it must be the work of nature. And the power or faculty by which we acquire those conceptions, must be something different from any power of the human mind that hath been explained, since it is neither sensation nor reflection.

This I would, therefore, humbly propose, as an *experimentum crucis*,⁷ by which the ideal system must stand or fall; and it brings the matter to a short issue: Extension, figure, motion, may, any one or all of them, be taken for the subject of this experiment. Either they are ideas of sensation, or they are not. If any one of them can be shewn to be an idea of sensation, or to have the least resemblance to any sensation, I lay my hand upon my mouth, and give up all pretense to reconcile reason to common sense in this matter, and must suffer the ideal scepticism to triumph. But if, on the other hand, they are not ideas of sensation, nor like to any sensation, then the ideal system is a rope of sand, and all the laboured arguments of the sceptical philosophy against a material world, and against the existence of everything but impressions and ideas, proceed upon a false hypothesis.

If our philosophy concerning the mind be so lame with regard to the origin of our notions of the clearest, most simple, and most familiar objects of thought, and the powers from which they are derived, can we expect that it should be more perfect in the account it gives of the origin of our opinions and belief? We have seen already some instances of its imperfection in this respect: and, perhaps, that same nature which hath given us the power to conceive things altogether unlike to any of our sensations, or to any operation of our minds, hath likewise provided for our belief of them, by some part of our constitution hitherto not explained.

Bishop Berkeley hath proved, beyond the possibility of reply, that we cannot by reasoning infer the existence of matter from our sensations; and the author of the "Treatise of Human Nature" hath proved no less clearly, that we cannot by reasoning infer the existence of our own or other minds from our sensations. But are we to admit nothing but what can be proved by reasoning? Then we must be sceptics indeed, and

believe nothing at all. The author of the "Treatise of Human Nature" appears to me to be but a half-sceptic. He hath not followed his principles so far as they lead him; but, after having, with unparalleled intrepidity and success, combatted vulgar prejudices, when he had but one blow to strike, his courage fails him, he fairly lays down his arms, and yields himself a captive to the most common of all vulgar prejudices—I mean the belief of the existence of his own impressions and ideas.

I beg, therefore, to have the honour of making an addition to the sceptical system, without which I conceive it cannot hang together. I affirm, that the belief of the existence of impressions and ideas, is as little supported by reason, as that of the existence of minds and bodies. No man ever did or could offer any reason for this belief. Descartes took it for granted, that he thought, and had sensations and ideas; so have all his followers done. Even the hero of scepticism hath yielded this point, I crave leave to say, weakly and imprudently. I say so, because I am persuaded

that there is no principle of his philosophy that obliged him to make this concession. And what is there in impressions and ideas so formidable, that this all-conquering philosophy, after triumphing over every other existence, should pay homage to them? Besides, the concession is dangerous: for belief is of such a nature, that, if you leave any root, it will spread; and you may more easily pull it up altogether, than say, Hitherto shalt go and no further: the existence of impressions and ideas I give up to thee; but see thou pretend to nothing more. A thorough and consistent sceptic will never, therefore, yield this point; and while he holds it, you can never oblige him to yield anything else.

To such a sceptic I have nothing to say; but of the semi-sceptics, I should beg to know, why they believe the existence of their impressions and ideas. The true reason I take to be, because they cannot help it; and the same reason will lead them to believe many other things.

All reasonings must be from first principles; and for first principles no other reason can be given but this; that, by the constitution of our nature, we are under a necessity of assenting to them. Such principles are parts of our constitution, no less than the power of thinking: reason can neither make nor destroy them; nor can it do anything without them: it is like a telescope, which may help a man to see farther, who hath eyes; but, without eyes, a telescope shows nothing at all. A mathematician cannot prove the truth of his axioms, nor can he prove anything, unless he takes them for granted. We cannot prove the existence of our minds, nor even of our thoughts and sensations. A historian, or a witness can prove nothing, unless it is taken for granted that the memory and senses may be trusted. A natural philosopher can prove nothing, unless it is taken for granted that the course of nature is steady and uniform.

How or when I got such first principles, upon which I build all my reasoning, I know not; for I had them before I can remember: but I am sure they are parts of my constitution, and that I cannot throw them off. That our thoughts and sensations must have a subject, which we call ourself, is not therefore an opinion got by reasoning, but a natural principle. That our sensations of touch indicate something external, extended, figured, hard or soft, is not a deduction of reason, but a natural principle. The belief of it, and the very conception of it, are equally parts of our constitution. If we are deceived in it, we are deceived by Him that made us, and there is no remedy.

I do not mean to affirm, that the sensations of touch do, from the very first, suggest the same notions of body and its qualities which they do when we are grown up. Perhaps Nature is frugal in this, as in her other operations. The passion of love, with all its concomitant sentiments and desires, is naturally suggested by the perception of beauty in the other sex; yet the same perception does not suggest the tender passion till a certain period of life. A blow given to an infant, raises grief and lamentation; but when he grows up, it as naturally stirs resentment, and prompts him to resistance. Perhaps a child in the womb, or for some short period of its existence, is merely a sentient being; the faculties by which it perceives an external world, by which it reflects on its own thoughts, and existence, and relation to other things, as well as its reasoning and moral faculties, unfold themselves by degrees; so that it is inspired with the various principles of common sense, as with the passions of love and resentment, when it has occasion for them.

NOTES

1. [George Berkeley.]
2. [In old English law, a writ against one who is thought to have usurped any office, franchise, or liberty, to inquire on behalf of the king by what authority one exercises the office, etc.]

3. [By "the ideal system," Reid means the system of "ideas" that is, idealism or phenomenalism.]

4. [Reid refers here to David Hume.]

5. [Personal error.]

6. [Error of principle.]

7. [Crucial experiment.]

Proof of an External World

G. E. MOORE

G. E. Moore (1873-1958) spent his entire career at Cambridge University, and wrote important works in ethics, free will, and epistemology.

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It seems to me that, so far from its being true, as Kant declares to be his opinion, that there is only one possible proof of the existence of things outside of us, namely the one which he has given, I can now give a large number of different proofs, each of which is a perfectly rigorous proof; and that at many other times I have been in a position to give many others. I can prove now, for instance, that two human hands exist. How? By holding up my two hands, and saying, as I make a certain gesture with the right hand, 'Here is one hand', and adding, as I make a certain gesture with the left, 'and here is another'. And if, by doing this, I have proved ipso facto the existence of external things, you will all see that I can also do it now in numbers of other ways: there is no need to multiply examples.

But did I prove just now that two human hands were then in existence? I do want to insist that I did; that the proof which I gave was a perfectly rigorous one; and that it is perhaps impossible to give a better or more rigorous proof of anything whatever. Of course, it would not have been a proof unless three conditions were satisfied; namely (1) unless the premiss which I adduced as proof of the conclusion was different from the conclusion I adduced it to prove; (2) unless the premiss which I adduced was something which I knew to be the case, and not merely something which I believed but which was by no means certain, or something which, though in fact true, I did not know to be so; and (3) unless the conclusion did really follow from the premiss. But all these three conditions were in fact satisfied by my proof. (1) The premiss which I adduced in proof was quite certainly different from the conclusion, for the conclusion was merely 'Two human hands exist at this moment'; but the premiss was something far more specific than which I expressed by showing you my hands, making certain gestures, and saying the words 'Here is one hand, and here is another'. It is quite obvious that the two were different, because it is quite obvious that the conclusion might have been true, even if the premiss had been false. In asserting the premiss I was asserting much more than I was asserting in asserting the conclusion. (2) I certainly did at the moment know that which I expressed by the combination of certain gestures with saying the words 'Here is one hand and here is another'. I knew that there was one hand in the place indicated by combining a certain gesture with my first utterance of 'here' and that there was another in the different place indicated by

combining a certain gesture with my second utterance of 'here'. How absurd it would be to suggest that I did not know it, but only believed it, and that perhaps it was not the case! You might as well suggest that I do not know that I am now standing up and talking-that perhaps after all I'm not, and that it's not quite certain that I am! And finally (3) it is quite certain that the conclusion did follow from the premiss. This is as certain as it is that if there is one hand here

and another here now, then it follows that there are two hands in existence now.

My proof, then, of the existence of things outside of us did satisfy three of the conditions necessary for a rigorous proof. Are there any other conditions necessary for a rigorous proof, such that perhaps it did not satisfy one of them? Perhaps there may be; I do not know; but I do want to emphasise that, so far as I can see, we all of us do constantly take proofs of this sort as absolutely conclusive proofs of certain conclusions-as finally settling certain questions, as to which we were previously in doubt. Suppose, for instance, it were a question whether there were as many as three misprints on a certain page in a certain book. A says there are, B is inclined to doubt it. How could A prove that he is right? Surely he could prove it by taking the book, turning to the page, and pointing to three separate places on it, saying 'There's one misprint here, another here, and another here': surely that is a method by which it might be proved! Of course, A would not have proved, by doing this, that there were at least three misprints on the page in question, unless it was certain that there was a misprint in each of the places to which he pointed. But to say that he might prove it in this way, is to say that it might be certain that there was. And if such a thing as that could ever be certain, then assuredly it was certain just now that there was one hand in one of the two places I indicated and another in the other.

I did, then, just now, give a proof that there were then external objects; and obviously, if I did, I could then have given many other proofs of the same sort that there were external objects then, and could now give many proofs of the same sort that there are external objects now.

But, if what I am asked to do is to prove that external objects have existed in the past, then I can give many different proofs of this also, but proofs which are in important respects of a different sort from those just given. And I want to emphasise that, when Kant says it is a scandal not to be able to give a proof of the existence of external objects, a proof of their existence in the past would certainly help to remove the scandal of which he is speaking. He says that, if it occurs to anyone to question their existence, we ought to be able to confront him with a satisfactory proof. But by a person who questions their existence, he certainly means not merely a person who questions whether any exist at the moment of speaking, but a person who questions whether any have ever existed; and a proof that some have existed in the past would certainly therefore be relevant to part of what such a person is questioning. How then can I prove that there have been external objects in the past? Here is one proof. I can say: 'I held up two hands above this desk not very long ago; therefore two hands existed not very long ago; therefore at least two external objects have existed at some time in the past, QED'. This is a perfectly good proof, provided I know what is asserted in the premiss. But I do know that I held up two hands above this desk not very long ago. As a matter of fact, in this case you all know it too. There's no doubt whatever that I did. Therefore I have given a perfectly conclusive proof that external objects have existed in the past; and you will all see at once that, if this is a conclusive proof, I could have given many others of the same sort, and could now give many others. But it is also quite obvious that this sort of proof differs in important respects from the sort of proof I gave just now that there were two hands existing then.

I have, then, given two conclusive proofs of the existence of external objects. The first was a proof that two human hands existed at the time when I gave the proof; the second was a proof that two human hands had existed at a time previous to that at which I gave the proof. These proofs were of a different sort in important respects. And I pointed out that I could have given, then, many other conclusive proofs of both sorts. It is also obvious that I could give

many others of both sorts now. So that, if these are the sort of proof that is wanted, nothing is easier than to prove the existence of external objects.

But now I am perfectly well aware that, in spite of all that I have said, many philosophers will still feel that I have not given any satisfactory proof of the point in question. And I want briefly, in conclusion, to say something as to why this dissatisfaction with my proofs should be felt.

One reason why, is, I think, this. Some people understand 'proof of an external world' as including a proof of things which I haven't attempted to prove and haven't proved. It is not quite easy to say what it is that they want proved-what it is that is such that unless they got a proof of it, they would not say that they had a proof of the existence of external things; but I can make an approach to explaining what they want by saying that if I had proved the propositions which I used as premisses in my two proofs, then they would perhaps admit that I had proved the existence of external things, but, in the absence of such a proof (which, of course, I have neither given nor attempted to give), they will say that I have not given what they mean by a proof of the existence of external things. In other words, they want a proof of what I assert now when I hold up my hands and say 'Here's one hand and here's another'; and, in the other case, they want a proof of what I assert now when I say 'I did hold up two hands above this desk just now'. Of course, what they really want is not merely a proof of these two propositions, but something like a general statement as to how any propositions of this sort may be proved. This, of course, I haven't given; and I do not believe it can be given: if this is what is meant by proof of the existence of external things, I do not believe that any proof of the existence of external things is possible. Of course, in some cases what might be called a proof of propositions which seem like these can be got. If one of you suspected that one of my hands was artificial he might be said to get a proof of my proposition 'Here's one hand, and here's another', by coming up and examining the suspected hand close up, perhaps touching and pressing it, and so establishing that it really was a human hand. But I do not believe that any proof is possible in nearly all cases. How am I to prove now that 'Here's one hand, and here's another'? I do not believe I can do it. In order to do it, I should need to prove for one thing, as Descartes pointed out, that I am not now dreaming. But how can I prove that I am not? I have, no doubt, conclusive reasons for asserting that I am not now dreaming; I have conclusive evidence that I am awake: but that is a very different thing from being able to prove it. I could not tell you what all my evidence is; and I should require to do this at least, in order to give you a proof.

But another reason why some people would feel dissatisfied with my proofs is, I think, not merely that they want a proof of something which I haven't proved, but that they think that, if I cannot give such extra proofs, then the proofs that I have given are not conclusive proofs at all. And this, I think, is a definite mistake. They would say: 'If you cannot prove your premiss that here is one hand and here is another, then you do not know it. But you yourself have admitted that, if you did not know it, then your proof was not conclusive. Therefore your proof was not, as you say it was, a conclusive proof.' This view that, if I cannot prove such things as these, I do not know them, is, I think, the view that Kant was expressing in the sentence which I quoted at the beginning of this lecture, when he implies that so long as we have no proof of the existence of external things, their existence must be accepted merely on faith. He means to say, I think, that if I cannot prove that there is a hand here, I must accept it merely as a matter of cannot know it. Such a view, though it has been very common among philosophers, can, I think, be shown to be wrong-though shown only by the use of premisses which are not known to be true, unless we do know of the existence of external things. I can know things, which I cannot prove; and among things which I certainly did know, even if (as I think) I could not prove them, were the premisses of my two proofs. I should say, therefore, that those, if any, who are dissatisfied with these

proofs merely on the ground that I did not know their premisses, have no good reason for their dissatisfaction.

THE METHODS OF SCIENCE

An Inquiry Concerning Human Understanding

DAVID HUME

David Hume, *An Inquiry Concerning Human Understanding*. Sections II, IV-VII. First published in 1748.

SECTION II. OF THE ORIGIN OF IDEAS

Everyone will readily allow that there is a considerable difference between the perceptions of the mind when a man feels the pain of excessive heat or the pleasure of moderate warmth, and when he afterwards recalls to his memory this sensation or anticipates it by his imagination. These faculties may mimic or copy the perceptions of the senses, but they never can entirely reach the force and vivacity of the original sentiment. The utmost we say of them, even when they operate with greatest vigor, is that they represent their object in so lively a manner that we could almost say we feel or see it. But, except the mind be disordered by disease or madness, they never can arrive at such a pitch of vivacity as to render these perceptions altogether undistinguishable. All the colors of poetry, however splendid, can never paint natural objects in such a manner as to make the description be taken for a real landscape. The most lively thought is still inferior to the dullest sensation.

We may observe a like distinction to run through all the other perceptions of the mind. A man in a fit of anger is actuated in a very different manner from one who only thinks of that emotion. If you tell me that any person is in love, I easily understand your meaning and form a just conception of his situation, but never can mistake that conception for the real disorders and agitations of the passion. When we reflect on our past sentiments and affections, our thought is a faithful mirror and copies its objects truly, but the colors which it employs are faint and dull in comparison of those in which our original perceptions were clothed. It requires no nice discernment or metaphysical head to mark the distinction between them.

Here, therefore, we may divide all the perceptions of the mind into two classes or species, which are distinguished by their different degrees of force and vivacity. The less forcible and lively are commonly denominated "thoughts" or "ideas." The other species want a name in our language, and in most others; I suppose, because it was not requisite for any but philosophical purposes to rank them under a general term or appellation. Let us, therefore, use a little freedom and call them "impressions," employing that word in a sense somewhat different from the usual. By the term "impression," then, I mean all our more lively perceptions, when we hear, or see, or feel, or love, or hate, or desire, or will. And impressions are distinguished from ideas, which are the less lively perceptions of which we are conscious when we reflect on any of those sensations or movements above mentioned.

Nothing, at first view, may seem more unbounded than the thought of man, which not only escapes all human power and authority, but is not even restrained within the limits of nature and reality. To form monsters and join incongruous shapes and appearances costs the imagination no more trouble than to conceive the most natural and familiar objects. And while the body is confined to one planet, along which

it creeps with pain and difficulty, the thought can in an instant transport us into the most

distant regions of the universe, or even beyond the universe into the unbounded chaos where nature is supposed to lie in total confusion. What never was seen or heard of, may yet be conceived, nor is anything beyond the power of thought except what implies an absolute contradiction.

But though our thought seems to possess this unbounded liberty, we shall find upon a nearer examination that it is really confined within very narrow limits, and that all this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience. When we think of a golden mountain, we only join two consistent ideas, "gold" and "mountain," with which we were formerly acquainted. A virtuous horse we can conceive, because, from our own feeling, we can conceive virtue; and this we may unite to the figure and shape of a horse, which is an animal familiar to us. In short, all the materials of thinking are derived either from our outward or inward sentiment; the mixture and composition of these belongs alone to the mind and will, or, to express myself in philosophical language, all our ideas or more feeble perceptions are copies of our impressions or more lively ones.

To prove this, the two following arguments will, I hope, be sufficient. First, when we analyze our thoughts or ideas, however compounded or sublime, we always find that they resolve themselves into such simple ideas as were copied from a precedent feeling or sentiment. Even those ideas which at first view seem the most wide of this origin are found, upon a nearer scrutiny, to be derived from it. The idea of God, as meaning an infinitely intelligent, wise, and good Being, arises from reflecting on the operations of our own mind and augmenting, without limit, those qualities of goodness and wisdom. We may prosecute this inquiry to what length we please; where we shall always find that every idea which we examine is copied from a similar impression. Those who would assert that this position is not universally true, nor without exception, have only one, and that an easy, method of refuting it by producing that idea which, in their opinion, is not derived from this source. It will then be incumbent on us, if we would maintain our doctrine, to produce the impression or lively perception which corresponds to it.

Secondly, if it happen, from a defect of the organ, that a man is not susceptible of any species of sensation, we always find that he is as little susceptible of the correspondent ideas. A blind man can form no notion of colors, a deaf man of sounds. Restore either of them that sense in which he is deficient by opening this new inlet for his sensations, you also open an inlet for the ideas, and he finds no difficulty in conceiving these objects. The case is the same if the object proper for exciting any sensation has never been applied to the organ. A Laplander ... has no notion of the relish of wine. And though there are few or no instances of a like deficiency in the mind where a person has never felt or is wholly incapable of a sentiment or passion that belongs to his species, yet we find the same observation to take place in a less degree. A man of mild manners can form no idea of inveterate revenge or cruelty, nor can a selfish heart easily conceive the heights of friendship and generosity. It is readily allowed that other beings may possess many senses of which we can have no conception, because the ideas of them have never been introduced to us in the only manner by which an idea can have access to the mind, to wit, by the actual feeling and sensation.

There is, however, one contradictory phenomenon which may prove that it is not absolutely impossible for ideas to arise independent of their correspondent impressions. I believe it will readily be allowed that the several distinct ideas of color, which enter by the eye, or those of sound, which are conveyed by the ear, are really different from each other, though at the same time resembling. Now, if this be true of different colors, it must be no less so of the different

shades of the same color; and each shade produces a distinct idea, independent of the rest. For if this should be denied, it is possible, by the continual gradation of shades, to run a color insensibly into what is most remote from it; and if you will not allow any of the means to be different, you cannot, without absurdity, deny the extremes to be the same. Suppose, therefore, a person to

have enjoyed his sight for thirty years and to have become perfectly acquainted with colors of all kinds, except one particular shade of blue, for instance, which it never has been his fortune to meet with; let all the different shades of that color, except that single one, be placed before him, descending gradually from the deepest to the lightest, it is plain that he will perceive a blank where that shade is wanting, and will be sensible that there is a greater distance in that place between the contiguous colors than in any other. Now I ask whether it be possible for him, from his own imagination, to supply this deficiency and raise up to himself the idea of that particular shade, though it had never been conveyed to him by his senses? I believe there are few but will be of opinion that he can; and this may serve as a proof that the simple ideas are not always, in every instance, derived from the correspondent impressions, though this instance is so singular that it is scarcely worth our observing, and does not merit that for it alone we should alter our general maxim.

Here, therefore, is a proposition which not only seems in itself simple and intelligible, but, if a proper use were made of it, might render every dispute equally intelligible, and banish all that jargon which has so long taken possession of metaphysical reasonings and drawn disgrace upon them. All ideas, especially abstract ones, are naturally faint and obscure. The mind has but a slender hold of them. They are apt to be confounded with other resembling ideas; and when we have often employed any term, though without a distinct meaning, we are apt to imagine it has a determinate idea annexed to it. On the contrary, all impressions, that is, all sensations either outward or inward, are strong and vivid. The limits between them are more exactly determined, nor is it easy to fall into any error or mistake with regard to them. When we entertain, therefore, any suspicion that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but inquire, from what impression is that supposed idea derived? And if it be impossible to assign any, this will serve to confirm our suspicion. By bringing ideas in so clear a light, we may reasonably hope to remove all dispute which may arise concerning their nature and reality.'

SECTION IV. SKEPTICAL DOUBTS CONCERNING THE OPERATIONS OF THE UNDERSTANDING

Part I

All the objects of human reason or inquiry may naturally be divided into two kinds, to wit, "Relations of Ideas," and "Matters of Fact." Of the first kind are the sciences of Geometry, Algebra, and Arithmetic, and, in short, every affirmation which is either intuitively or demonstratively certain. That the square of the hypotenuse is equal to the square of the two sides is a proposition which expresses a relation between these figures. That three times five is equal to the half of thirty expresses a relation between these numbers. Propositions of this kind are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe. Though there never were a circle or triangle in nature, the truths demonstrated by Euclid would forever retain their certainty and evidence.

Matters of fact, which are the second objects of human reason, are not ascertained in the same manner, nor is our evidence of their truth, however great, of a like nature with the foregoing. The contrary of every matter of fact is still possible, because it can never imply a

contradiction and is conceived by the mind with the same facility and distinctness as if ever so conformable to reality. That the sun will not rise tomorrow is no less intelligible a proposition and implies no more contradiction than the affirmation that it will rise. We should in vain, therefore, attempt to demonstrate its falsehood. Were it demonstratively false, it would imply a contradiction and could never be distinctly conceived by the mind.

It may, therefore, be a subject worthy of curiosity to inquire what is the nature of that evidence which assures us of any real existence and matter of fact beyond the present testimony of our senses or the records of our memory. This part of philosophy, it is observable, had been little cultivated either by the ancients or moderns; and, therefore, our doubts and errors in the prosecution of so important an inquiry may be the more excusable while we march through such difficult paths without any guide or direction. They

may even prove useful by exciting curiosity and destroying that implicit faith and security which is the bane of all reasoning and free inquiry. The discovery of defects in the common philosophy, if any such there be, will not, I presume, be a discouragement, but rather an incitement, as is usual, to attempt something more full and satisfactory than has yet been proposed to the public.

All reasonings concerning matter of fact seem to be founded on the relation of cause and effect. By means of that relation alone we can go beyond the evidence of our memory and senses. If you were to ask a man why he believes any matter of fact which is absent, for instance, that his friend is in the country or in France, he would give you a reason, and this reason would be some other fact: as a letter received from him or the knowledge of his former resolutions and promises. A man finding a watch or any other machine in a desert island would conclude that there had once been men in that island. All our reasonings concerning fact are of the same nature. And here it is constantly supposed that there is a connection between the present fact and that which is inferred from it. Were there nothing to bind them together, the inference would be entirely precarious. The hearing of an articulate voice and rational discourse in the dark assures us of the presence of some person. Why? Because these are the effects of the human make and fabric, and closely connected with it. If we anatomize all the other reasonings of this nature, we shall find that they are founded on the relation of cause and effect, and that this relation is either near or remote, direct or collateral. Heat and light are collateral effects of fire, and the one effect may justly be inferred from the other.

If we would satisfy ourselves, therefore, concerning the nature of that evidence which assures us of matters of fact, we must inquire how we arrive at the knowledge of cause and effect.

I shall venture to affirm, as a general proposition which admits of no exception, that the knowledge of this relation is not, in any instance, attained by reasonings a priori, but arises entirely from experience, when we find that any particular objects are constantly conjoined with each other. Let an object be presented to a man of ever so strong natural reason and abilities-if that object be entirely new to him, he will not be able, by the most accurate examination of its sensible qualities, to discover any of its causes or effects. Adam, though his rational faculties be supposed, at the very first, entirely perfect, could not have inferred from the fluidity and transparency of water that it would suffocate him, or from the light and warmth of fire that it would consume him. No object ever discovers, by the qualities which appear to the senses, either the causes which produced it or the effects which will arise from it; nor can our reason, unassisted by experience, ever draw any inference concerning real existence and matter of fact.

This proposition, that causes and effects are discoverable, not by reason, but by

experience, will readily be admitted with regard to such objects as we remember to have once been altogether unknown to us, since we must be conscious of the utter inability which we then lay under of foretelling what would arise from them. Present two smooth pieces of marble to a man who has no tincture of natural philosophy; he will never discover that they will adhere together in such a manner as to require great force to separate them in a direct line, while they make so small a resistance to a lateral pressure. Such events as bear little analogy to the common course of nature are also readily confessed to be known only by experience, nor does any man imagine that the explosion of gunpowder or the attraction of a loadstone could ever be discovered by arguments a priori. In like manner, when an effect is supposed to depend upon an intricate machinery or secret structure of parts, we make no difficulty in attributing all our knowledge of it to experience. Who will assert that he can give the ultimate reason why milk or bread is proper nourishment for a man, not for a lion or tiger?

But the same truth may not appear at first sight to have the same evidence with regard to events which have become familiar to us from our first appearance in the world, which bear a close analogy to the whole course of nature, and which are supposed to depend on the simple qualities of objects without any secret structure of parts. We are apt to imagine that we could discover these effects by the mere operation of our

reason without experience. We fancy that, were we brought on a sudden into this world, we could at first have inferred that one billiard ball would communicate motion to another upon impulse, and that we needed not to have waited for the event in order to pronounce with certainty concerning it. Such is the influence of custom that where it is strongest it not only covers our natural ignorance but even conceals itself, and seems not to take place, merely because it is found in the highest degree.

But to convince us that all the laws of nature and all the operations of bodies without exception are known only by experience, the following reflections may perhaps suffice. Were any object presented to us, and were we required to pronounce concerning the effect which will result from it without consulting past observation, after what manner, I beseech you, must the mind proceed in this operation? It must invent or imagine some event which it ascribes to the object as its effect; and it is plain that this invention must be entirely arbitrary. The mind can never possibly find the effect in the supposed cause by the most accurate scrutiny and examination. For the effect is totally different from the cause, and consequently can never be discovered in it. Motion in the second billiard ball is quite a distinct event from motion in the first, nor is there anything in the one to suggest the smallest hint of the other. A stone or piece of metal raised into the air and left without any support immediately falls. But to consider the matter a priori, is there anything we discover in this situation which can beget the idea of a downward rather than an upward or any other motion in the stone or metal?

And as the first imagination or invention of a particular effect in all natural operations is arbitrary where we consult not experience, so must we also esteem the supposed tie or connection between the cause and effect which binds them together and renders it impossible that any other effect could result from the operation of that cause. When I see, for instance, a billiard ball moving in a straight line toward another, even suppose motion in the second ball should by accident be suggested to me as the result of their contact or impulse, may I not conceive that a hundred different events might as well follow from that cause? May not both these balls remain at absolute rest? May not the first ball return in a straight line or leap off the second in any line or direction? All these suppositions are consistent and conceivable. Why, then, should we give the preference to one which is no more consistent or conceivable than the

rest? All our reasonings a priori will never be able to show us any foundation for this preference.

In a word, then, every effect is a distinct event from its cause. It could not, therefore, be discovered in the cause, and the first invention or conception of it a priori, must be entirely arbitrary. And even after it is suggested, the conjunction of it with the cause must appear equally arbitrary, since there are always many other effects which, to reason, must seem fully as consistent and natural. In vain, therefore, should we pretend to determine any single event or infer any cause or effect without the assistance of observation and experience.

Hence we may discover the reason why no philosopher who is rational and modest has ever pretended to assign the ultimate cause of any natural operation, or to show distinctly the action of that power which produces any single effect in the universe. It is confessed that the utmost effort of human reason is to reduce the principles productive of natural phenomena to a greater simplicity, and to resolve the many particular effects into a few general causes, by means of reasonings from analogy, experience, and observation. But as to the causes of these general causes, we should in vain attempt their discovery, nor shall we ever be able to satisfy ourselves by any particular explication of them. These ultimate springs and principles are totally shut up from human curiosity and inquiry. Elasticity, gravity, cohesion of parts, communication of motion by impulse—these are probably the ultimate causes and principles which we ever discover in nature; and we may esteem ourselves sufficiently happy if, by accurate inquiry and reasoning, we can trace up the particular phenomena to, or near to, these general principles. The most perfect philosophy of the natural kind only staves off our ignorance a little longer, as perhaps the most perfect philosophy of the moral or metaphysical kind serves only to discover larger

portions of it. Thus the observation of human blindness and weakness is the result of all philosophy, and meets us, at every turn, in spite of our endeavors to elude or avoid it.

Nor is geometry, when taken into the assistance of natural philosophy, ever able to remedy this defect or lead us into the knowledge of ultimate causes by all that accuracy of reasoning for which it is so justly celebrated. Every part of mixed mathematics proceeds upon the supposition that certain laws are established by nature in her operations, and abstract reasonings are employed either to assist experience in the discovery of these laws or to determine their influence in particular instances where it depends upon any precise degree of distance and quantity. Thus it is a law of motion, discovered by experience, that the moment or force of any body in motion is in the compound ratio or proportion of its solid contents and its velocity, and, consequently, that a small force may remove the greatest obstacle or raise the greatest weight if by any contrivance or machinery we can increase the velocity of that force so as to make it an overmatch for its antagonist. Geometry assists us in the application of this law by giving us the just dimensions of all the parts and figures which can enter into any species of machine, but still the discovery of the law itself is owing merely to experience; and all the abstract reasonings in the world could never lead us one step toward the knowledge of it. When we reason a priori and consider merely any object or cause as it appears to the mind, independent of all observation, it never could suggest to us the notion of any distinct object, such as its effect, much less show us the inseparable and inviolable connection between them. A man must be very sagacious who could discover by reasoning that crystal is the effect of heat, and ice of cold, without being previously acquainted with the operation of these qualities.

Part II

But we have not yet attained any tolerable satisfaction with regard to the question first proposed. Each solution still gives rise to a new question as difficult as the foregoing and leads us on to further inquiries. When it is asked, What is the nature of all our reasonings concerning

matter of fact? the proper answer seems to be that they are founded on the relation of cause and effect. When again it is asked, What is the foundation of all our reasonings and conclusions concerning that relation? it may be replied in one word, experience. But if we still carry on our sifting humor and ask, What is the foundation of all conclusions from experience? this implies a new question which may be of more difficult solution and explication. Philosophers that give themselves airs of superior wisdom and sufficiency have a hard task when they encounter persons of inquisitive dispositions, who push them from every corner to which they retreat, and who are sure at last to bring them to some dangerous dilemma. The best expedient to prevent this confusion is to be modest in our pretensions and even to discover the difficulty ourselves before it is objected to us. By this means we may make a kind of merit of our very ignorance.

I shall content myself in this section with an easy task and shall pretend only to give a negative answer to the question here proposed. I say, then, that even after we have experience of the operations of cause and effect, our conclusions from that experience are not founded on reasoning or any process of understanding. This answer we must endeavor both to explain and to defend.

It must certainly be allowed that nature has kept us at a great distance from all her secrets and has afforded us only the knowledge of a few superficial qualities of objects, while she conceals from us those powers and principles on which the influence of these objects entirely depends. Our senses inform us of the color, weight, and consistency of bread, but neither sense nor reason can ever inform us of those qualities which fit it for the nourishment and support of the human body. Sight or feeling conveys an idea of the actual motion of bodies, but as to that wonderful force or power which would carry on a moving body forever in a continued change of place, and which bodies never lose but by communicating it to others, of this we cannot form the most distant conception. But notwithstanding this ignorance of natural powers² and principles, we always presume when we see like sensible qualities that they

have like secret powers, and expect that effects similar to those which we have experienced will follow from them. If a body of like color and consistence with that bread which we have formerly eaten be presented to us, we make no scruple of repeating the experiment and foresee with certainty like nourishment and support. Now this is a process of the mind or thought of which I would willingly know the foundation. It is allowed on all hands that there is no known connection between the sensible qualities and the secret powers, and, consequently, that the mind is not led to form such a conclusion concerning their constant and regular conjunction by anything which it knows of their nature. As to past experience, it can be allowed to give direct and certain information of those precise objects only, and that precise period of time which fell under its cognizance: But why this experience should be extended to future times and to other objects which, for aught we know, may be only in appearance similar, this is the main question on which I would insist. The bread which I formerly ate nourished me; that is, a body of such sensible qualities was, at that time, endued with such secret powers. But does it follow that other bread must also nourish me at another time, and that like sensible qualities must always be attended with like secret powers? The consequence seems nowise necessary. At least, it must be acknowledged that there is here a consequence drawn by the mind, that there is a certain step taken, a process of thought, and an inference which wants to be explained. These two propositions are far from being the same: I have found that such an object has always been attended with such an effect, and I foresee that other objects which are in appearance similar will be attended with similar effects. I shall allow, if you please, that the one proposition may justly be inferred from the other: I know, in fact, that it always is inferred. But if you insist that the

inference is made by a chain of reasoning, I desire you to produce that reasoning. The connection between these propositions is not intuitive. There is required a medium which may enable the mind to draw such an inference, if indeed it be drawn by reasoning and argument. What that medium is I must confess passes my comprehension; and it is incumbent on those to produce it who assert that it really exists and is the origin of all our conclusions concerning matter of fact.

This negative argument must certainly, in process of time, become altogether convincing if many penetrating and able philosophers shall turn their inquiries this way, and no one be ever able to discover any connecting proposition or intermediate step which supports the understanding in this conclusion. But as the question is yet new, every reader may not trust so far to his own penetration as to conclude, because an argument escapes his inquiry, that therefore it does not really exist. For this reason it may be requisite to venture upon a more difficult task, and, enumerating all the branches of human knowledge, endeavor to show that none of them can afford such an argument.

All reasonings may be divided into two kinds, namely, demonstrative reasoning, or that concerning relations of ideas, and moral reasoning, or that concerning matter of fact and existence. That there are no demonstrative arguments in the case seems evident, since it implies no contradiction that the course of nature may change and that an object, seemingly like those which we have experienced, may be attended with different or contrary effects. May I not clearly and distinctly conceive that a body, falling from the clouds and which in all other respects resembles snow, has yet the taste of salt or feeling of fire? Is there any more intelligible proposition than to affirm that all the trees will flourish in December and January, and will decay in May and June? Now, whatever is intelligible and can be distinctly conceived implies no contradiction and can never be proved false by any demonstrative argument or abstract reasoning a priori.

If we be, therefore, engaged by arguments to put trust in past experience and make it the standard of our future judgment, these arguments must be probable only, or such as regard matter of fact and real existence, according to the division above mentioned. But that there is no argument of this kind must appear if our explication of that species of reasoning be admitted as solid and satisfactory. We have said that all arguments concerning existence are founded on the relation of cause and effect, that our knowledge of that

relation is derived entirely from experience, and that all our experimental conclusions proceed upon the supposition that the future will be conformable to the past. To endeavor, therefore, the proof of this last supposition by probable arguments, or arguments regarding existence, must be evidently going in a circle and taking that for granted which is the very point in question.

In reality, all arguments from experience are founded on the similarity which we discover among natural objects, and by which we are induced to expect effects similar to those which we have found to follow from such objects. And though none but a fool or madman will ever pretend to dispute the authority of experience or to reject that great guide of human life, it may surely be allowed a philosopher to have so much curiosity at least as to examine the principle of human nature which gives this mighty authority to experience and makes us draw advantage from that similarity which nature has placed among different objects. From causes which appear similar, we expect similar effects. This is the sum of our experimental conclusions. Now it seems evident that, if this conclusion were formed by reason, it would be as perfect at first, and upon one instance, as after ever so long a course of experience; but the case is far otherwise. Nothing so like as eggs, yet no one, on account of this appearing similarity, expects the same taste and

relish in all of them. It is only after a long course of uniform experiments in any kind that we attain a firm reliance and security with regard to a particular event. Now, where is that process of reasoning which, from one instance, draws a conclusion so different from that which it infers from a hundred instances that are nowise different from that single one? This question I propose as much for the sake of information as with an intention of raising difficulties. I cannot find, I cannot imagine any such reasoning. But I keep my mind still open to instruction if anyone will vouchsafe to bestow it on me.

Should it be said that, from a number of uniform experiments, we infer a connection between the sensible qualities and the secret powers, this, I must confess, seems the same difficulty, couched in different terms. The question still recurs, On what process of argument is this inference founded? Where is the medium, the interposing ideas which join propositions so very wide of each other? It is confessed that the color, consistence, and other sensible qualities of bread appear not of themselves to have any connection with the secret powers of nourishment and support; for otherwise we could infer these secret powers from the first appearance of these sensible qualities without the aid of experience, contrary to the sentiment of all philosophers, and contrary to plain matter of fact. Here, then, is our natural state of ignorance with regard to the powers and influence of all objects. How is this remedied by experience? It only shows us a number of uniform effects resulting from certain objects, and teaches us that those particular objects, at that particular time, were endowed with such powers and forces. When a new object endowed with similar sensible qualities is produced, we expect similar powers and forces, and look for a like effect. From a body of like color and consistence with bread, we expect like nourishment and support. But this surely is a step or progress of the mind which wants to be explained. When a man says, I have found, in all past instances, such sensible qualities, conjoined with such secret powers, and when he says, similar sensible qualities will always be conjoined with similar secret powers, he is not guilty of a tautology, nor are these propositions in any respect the same. You say that the one proposition is an inference from the other; but you must confess that the inference is not intuitive, neither is it demonstrative. Of what nature is it then? To say it is experimental is begging the question. For all inferences from experience suppose as their foundation, that the future will resemble the past and that similar powers will be conjoined with similar sensible qualities. If there be any suspicion that the course of nature may change, and that the past may be no rule for the future, all experience becomes useless and can give rise to no inference or conclusion. It is impossible, therefore, that any arguments from experience can prove this resemblance of the past to the future; since all these arguments are founded on the supposition of that resemblance. Let the course of things be allowed hitherto ever so regular, that alone, without some new argument or inference, proves not that for the future it will continue so. In vain do you pretend to have learned the nature of bodies from your past experience. Their secret nature and consequently all their effects and influence, may change without any change in their sensible qualities. This happens sometimes, and with regard to some objects. Why may it not happen always, and with regard to all objects? What logic, what process of argument secures you against this supposition? My practice, you say, refutes my doubts. But you mistake the purport of my question. As an agent, I am quite satisfied in the point; but as a philosopher who has some share of curiosity, I will not say skepticism, I want to learn the foundation of this inference. No reading, no inquiry has yet been able to remove my difficulty or give me satisfaction in a matter of such importance. Can I do better than propose the difficulty to the public, even though, perhaps, I have small hopes of obtaining a solution? We shall at least, by this means, be sensible of our ignorance, if we do not augment our knowledge.

I must confess that a man is guilty of unpardonable arrogance who concludes, because an argument has escaped his own investigation, that therefore it does not really exist. I must also confess that, though all the learned, for several ages, should have employed themselves in fruitless search upon any subject, it may still, perhaps, be rash to conclude positively that the subject must therefore pass all human comprehension. Even though we examine all the sources of our knowledge and conclude them unfit for such a subject, there may still remain a suspicion that the enumeration is not complete or the examination not accurate. But with regard to the present subject, there are some considerations which seem to remove all this accusation of arrogance or suspicion of mistake.

It is certain that the most ignorant and stupid peasants, nay infants, nay even brute beasts, improve by experience and learn the qualities of natural objects by observing the effects which result from them. When a child has felt the sensation of pain from touching the flame of a candle, he will be careful not to put his hand near any candle, but will expect a similar effect from a cause which is similar in its sensible qualities and appearance. If you assert, therefore, that the understanding of the child is led into this conclusion by any process of argument or ratiocination, I may justly require you to produce that argument, nor have you any pretense to refuse so equitable a demand. You cannot say that the argument is abstruse and may possibly escape your inquiry, since you confess that it is obvious to the capacity of a mere infant. If you hesitate, therefore, a moment or if, after reflection, you produce any intricate or profound argument, you, in a manner, give up the question and confess that it is not reasoning which engages us to suppose the past resembling the future, and to expect similar effects from causes which are to appearance similar. This is the proposition which I intended to enforce in the present section. If I be right, I pretend not to have made any mighty discovery. And if I be wrong, I must acknowledge myself to be indeed a very backward scholar, since I cannot now discover an argument which, it seems, was perfectly familiar to me long before I was out of my cradle.

SECTION V. SKEPTICAL SOLUTION OF THESE DOUBTS

Part I

The passion for philosophy, like that for religion, seems liable to this inconvenience, that though it aims at the correction of our manners and extirpation of our vices, it may only serve, by imprudent management, to foster a predominant inclination and push the mind with more determined resolution toward that side which already draws too much by the bias and propensity of the natural temper. It is certain that, while we aspire to the magnanimous firmness of the philosophic sage and endeavor to confine our pleasures altogether within our own minds, we may, at last, render our philosophy, like that of Epictetus and other Stoics, only a more refined system of selfishness, and reason ourselves out of all virtue as well as social enjoyment. While we study with attention the vanity of human life and turn all our thoughts toward the empty and transitory nature of riches and honors, we are, perhaps, all the while flattering our natural indolence which, hating the bustle of the world and drudgery of

business, seeks a pretense of reason to give itself a full and uncontrolled indulgence. There is, however, one species of philosophy which seems little liable to this inconvenience, and that because it strikes in with no disorderly passion of the human mind, nor can mingle itself with any natural affection or propensity; and that is the Academic or Skeptical philosophy. The Academics always talk of doubt and suspense of judgment, of danger in hasty determinations, of confining to very narrow bounds the inquiries of the understanding, and of renouncing all speculations which lie not within the limits of common life and practice. Nothing, therefore, can be more contrary than such a philosophy to the supine indolence of the mind, its rash arrogance,

its lofty pretensions, and its superstitious credulity. Every passion is mortified by it, except the love of truth; and that passion never is nor can be carried to too high a degree. It is surprising, therefore, that this philosophy, which in almost every instance must be harmless and innocent, should be the subject of so much groundless reproach and obloquy. But, perhaps, the very circumstance which renders it so innocent is what chiefly exposes it to the public hatred and resentment. By flattering no irregular passion, it gains few partisans. By opposing so many vices and follies, it raises to itself abundance of enemies who stigmatize it as libertine, profane, and irreligious.

Nor need we fear that this philosophy, while it endeavors to limit our inquiries to common life, should ever undermine the reasonings of common life and carry its doubts so far as to destroy all action as well as speculation. Nature will always maintain her rights and prevail in the end over any abstract reasoning whatsoever. Though we should conclude, for instance, as in the foregoing section, that in all reasonings from experience there is a step taken by the mind which is not supported by any argument or process of the understanding, there is no danger that these reasonings, on which almost all knowledge depends, will ever be affected by such a discovery. If the mind be not engaged by argument to make this step, it must be induced by some other principle of equal weight and authority; and that principle will preserve its influence as long as human nature remains the same. What that principle is may well be worth the pains of inquiry.

Suppose a person, though endowed with the strongest faculties of reason and reflection, to be brought on a sudden into this world; he would, indeed, immediately observe a continual succession of objects and one event following another, but he would not be able to discover anything further. He would not at first, by any reasoning, be able to reach the idea of cause and effect, since the particular powers by which all natural operations are performed never appear to the senses; nor is it reasonable to conclude, merely because one event in one instance precedes another, that therefore the one is the cause, the other the effect. The conjunction may be arbitrary and casual. There may be no reason to infer the existence of one from the appearance of the other; and, in a word, such a person without more experience could never employ his conjecture or reasoning concerning any matter of fact or be assured of anything beyond what was immediately present to his memory or senses.

Suppose again that he has acquired more experience and has lived so long in the world as to have observed similar objects or events to be constantly conjoined together-what is the consequence of this experience? He immediately infers the existence of one object from the appearance of the other, yet he has not, by all his experience, acquired any idea or knowledge of the secret power by which the one object produces the other, nor is it by any process of reasoning he is engaged to draw this inference; but still he finds himself determined to draw it, and though he should be convinced that his understanding has no part in the operation, he would nevertheless continue in the same course of thinking. There is some other principle which determines him to form such a conclusion.

This principle is custom or habit. For whenever the repetition of any particular act or operation produces a propensity to renew the same act or operation without being impelled by any reasoning or process of the understanding, we always say that this propensity is the effect of custom. By employing that word we pretend not to have given the ultimate reason of such a propensity. We only point out a principle of human

nature which is universally acknowledged, and which is well known by its effects. Perhaps we can push our inquiries no further or pretend to give the cause of this cause, but must

rest contented with it as the ultimate principle which we can assign of all our conclusions from experience. It is sufficient satisfaction that we can go so far without repining at the narrowness of our faculties, because they will carry us no further. And it is certain we here advance a very intelligible proposition at least, if not a true one, when we assert that after the constant conjunction of two objects, heat and flame, for instance, weight and solidity, we are determined by custom alone to expect the one from the appearance of the other. This hypothesis seems even the only one which explains the difficulty why we draw from a thousand instances an inference which we are not able to draw from one instance that is in no respect different from them. Reason is incapable of any such variation. The conclusions which it draws from considering one circle are the same which it would form upon surveying all the circles in the universe. But no man, having seen only one body move after being impelled by another, could infer that every other body will move after a like impulse. All inferences from experience, therefore, are effects of custom, not of reasoning.³

Custom, then, is the great guide of human life. It is that principle alone which renders our experience useful to us and makes us expect, for the future, a similar train of events with those which have appeared in the past. Without the influence of custom we should be entirely ignorant of every matter of fact beyond what is immediately present to the memory and senses. We should never know how to adjust means to ends or to employ our natural powers in the production of any effect. There would be an end at once of all action as well as of the chief part of speculation.

But here it may be proper to remark that though our conclusions from experience carry us beyond our memory and senses and assure us of matters of fact which happened in the most distant places and most remote ages, yet some fact must always be present to the senses or memory from which we may first proceed in drawing these conclusions. A man who should find in a desert country the remains of pompous buildings would conclude that the country had, in ancient times, been cultivated by civilized inhabitants; but did nothing of this nature occur to him, he could never form such an inference. We learn the events of former ages from history, but then we must peruse the volume in which this instruction is contained, and thence carry up our inferences from one testimony to another, till we arrive at the eyewitnesses and spectators of these distant events. In a word, if we proceed not upon some fact present to the memory or senses, our reasonings would be merely hypothetical; and however the particular links might be connected with each other, the whole chain of inferences would have nothing to support it, nor could we ever, by its means, arrive at the knowledge of any real existence. If I ask why you believe any particular matter of fact which you relate, you must tell me some reason; and this reason will be some other fact connected with it. But as you cannot proceed after this manner in infinitum, you must at last terminate in some fact which is present to your memory or senses or must allow that your belief is entirely without foundation.

What, then, is the conclusion of the whole matter? A simple one, though, it must be confessed, pretty remote from the common theories of philosophy. All belief of matter of fact or real existence is derived merely from some object present to the memory or senses and a customary conjunction between that and some other object; or, in other words, having found, in many instances, that any two kinds of objects, flame and heat, snow and cold, have always been conjoined together: if flame or snow be presented anew to the senses, the mind is carried by custom to expect heat or cold, and to believe that such a quality does exist and will discover itself upon a nearer approach. This belief is the necessary result of placing the mind in such circumstances. It is an operation of the soul, when we are so situated, as unavoidable as to feel

the passion of love, when we receive benefits; or hatred, when we meet with injuries. All these operations are a species of natural instincts, which no reasoning or process of the thought and understanding is able either to produce or to prevent. At this point it

would be very allowable for us to stop our philosophical researches. In most questions we can never make a single step further; and in all questions we must terminate here at last, after our most restless and curious inquiries. But still our curiosity will be pardonable, perhaps commendable, if it carry us on to still further researches and make us examine more accurately the nature of this belief and of the customary conjunction whence it is derived. By this means we may meet with some explications and analogies that will give satisfaction, at least to such as love the abstract sciences, and can be entertained with speculations which, however accurate, may still retain a degree of doubt and uncertainty. As to readers of a different taste, the remaining part of this Section is not calculated for them; and the following inquiries may well be understood, though it be neglected.

Part II

Nothing is more free than the imagination of man, and though it cannot exceed that original stock of ideas furnished by the internal and external senses, it has unlimited power of mixing, compounding, separating, and dividing these ideas in all the varieties of fiction and vision. It can feign a train of events with all the appearance of reality, ascribe to them a particular time and place, conceive them as existent, and paint them out to itself with every circumstance that belongs to any historical fact which it believes with the greatest certainty. Wherein, therefore, consists the difference between such a fiction and belief? It lies not merely in any peculiar idea which is annexed to such a conception as commands our assent, and which is wanting to every known fiction. For as the mind has authority over all its ideas, it could voluntarily annex this particular idea to any fiction, and consequently be able to believe whatever it pleases, contrary to what we find by daily experience. We can, in our conception, join the head of a man to the body of a horse, but it is not in our power to believe that such an animal has ever really existed.

It follows, therefore, that the difference between fiction and belief lies in some sentiment or feeling which is annexed to the latter, not to the former, and which depends not on the will, nor can be demanded at pleasure. It must be excited by nature like all other sentiments and must rise from the particular situation in which the mind is placed at any particular juncture. Whenever any object is presented to the memory or senses, it immediately, by the force of custom, carries the imagination to conceive that object which is usually conjoined to it; and this conception is attended with a feeling or sentiment different from the loose reveries of the fancy. In this consists the whole nature of belief. For as there is no matter of fact which we believe so firmly that we cannot conceive the contrary, there would be no difference between the conception assented to and that which is rejected were it not for some sentiment which distinguishes the one from the other. If I see a billiard ball moving toward another on a smooth table, I can easily conceive it to stop upon contact. This conception implies no contradiction, but still it feels very differently from that conception by which I represent to myself the impulse and the communication of motion from one ball to another.

Were we to attempt a definition of this sentiment, we should, perhaps, find it a very difficult, if not an impossible, task; in the same manner as if we should endeavor to define the feeling of cold, or passion of anger, to a creature who never had any experience of these sentiments. Belief is the true and proper name of this feeling, and no one is ever at a loss to know the meaning of that term, because every man is every moment conscious of the sentiment

represented by it. It may not, however, be improper to attempt a description of this sentiment, in hopes we may by that means arrive at some analogies which may afford a more perfect explication of it. I say that belief is nothing but a more vivid, lively, forcible, firm, steady conception of an object than what the imagination alone is ever able to attain. This variety of terms, which may seem so unphilosophical, is intended only to express that act of the mind which renders realities, or what is taken for such, more present to us than fictions, causes them to weigh more in the thought, and gives them a superior influence on the passions and imagination. Provided we agree about the thing, it is needless to dispute about the terms. The imagination has the command over all its

ideas and can join and mix and vary them in all the ways possible. It may conceive fictitious objects with all the circumstances of place and time. It may set them in a manner before our eyes, in their true colors, just as they might have existed. But as it is impossible that this faculty of imagination can ever, of itself, reach belief, it is evident that belief consists not in the peculiar nature or order of ideas, but in the manner of their conception and in their feeling to the mind. I confess that it is impossible perfectly to explain this feeling or manner of conception. We may make use of words which express something near it. But its true and proper name, as we observed before, is "belief," which is a term that everyone sufficiently understands in common life. And in philosophy we can go no further than assert that belief is something felt by the mind, which distinguishes the ideas of the judgment from the fictions of the imagination. It gives them more weight and influence, makes them appear of greater importance, enforces them in the mind, and renders them the governing principle of our actions. I hear at present, for instance, a person's voice with whom I am acquainted, and the sound comes as from the next room. This impression of my senses immediately conveys my thought to the person, together with all the surrounding objects. I paint them out to myself as existing at present, with the same qualities and relations of which I formerly knew them possessed. These ideas take faster hold of my mind than ideas of an enchanted castle. They are very different from the feeling and have a much greater influence of every kind, either to give pleasure or pain, joy or sorrow.

Let us, then, take in the whole compass of this doctrine and allow that the sentiment of belief is nothing but a conception more intense and steady than what attends the mere fictions of the imagination, and that this manner of conception arises from a customary conjunction of the object with something present to the memory or senses. I believe that it will not be difficult, upon these suppositions, to find other operations of the mind analogous to it and to trace up these phenomena to principles still more general.

We have already observed that nature has established connections among particular ideas, and that no sooner one idea occurs to our thoughts than it introduces its correlative and carries our attention towards it by a gentle and insensible movement. These principles of connection or association we have reduced to three, namely, "resemblance," "contiguity," and "causation," which are the only bonds that unite our thoughts together and beget that regular train of reflection or discourse which, in a greater or less degree, takes place among mankind. Now here arises a question on which the solution of the present difficulty will depend. Does it happen in all these relations that when one of the objects is presented to the senses or memory, the mind is not only carried to the conception of the correlative, but reaches a steadier and stronger conception of it than what otherwise it would have been able to attain? This seems to be the case with that belief which arises from the relation of cause and effect. And if the case be the same with the other relations or principles of association, this may be established as a general law which takes place in all the operations of the mind.

We may, therefore, observe, as the first experiment to our present purpose, that upon the appearance of the picture of an absent friend our idea of him is evidently enlivened by the resemblance, and that every passion which that idea occasions, whether of joy or sorrow, acquires new force and vigor. In producing this effect there concur both a relation and a present impression. Where the picture bears him no resemblance, at least was not intended for him, it never so much as conveys our thought to him. And where it is absent, as well as the person, though the mind may pass from the thought of one to that of the other, it feels its idea to be rather weakened than enlivened by that transition. We take a pleasure in viewing the picture of a friend when it is set before us; but when it is removed, rather choose to consider him directly than by reflection on an image which is equally distant and obscure.

The ceremonies of the Roman Catholic religion may be considered as instances of the same nature. The devotees of that superstition usually plead, in excuse for the mummeries with which they are upbraided, that they feel the good effect

of those external motions, and postures, and actions in enlivening their devotion and quickening their fervor, which otherwise would decay if directed entirely to distant and immaterial objects. We shadow out the objects of our faith, say they, in sensible types and images, and render them more present to us by the immediate presence of these types than it is possible for us to do merely by an intellectual view and contemplation. Sensible objects have always a greater influence on the fancy than any other, and this influence they readily convey to those ideas to which they are related and which they resemble. I shall only infer from these practices and this reasoning that the effect of resemblance in enlivening the ideas is very common; and as in every case a resemblance and a present impression must concur, we are abundantly supplied with experiments to prove the reality of the foregoing principle.

We may add force to these experiments by others of a different kind, in considering the effects of contiguity as well as of resemblance. It is certain that distance diminishes the force of every idea and that, upon our approach to any object, though it does not discover itself to our senses, it operates upon the mind with an influence which imitates an immediate impression. The thinking on any object readily transports the mind to what is contiguous; but it is only the actual presence of an object that transports it with a superior vivacity. When I am a few miles from home, whatever relates to it touches me more nearly than when I am two hundred leagues distant, though even at that distance the reflecting on anything in the neighborhood of my friends or family naturally produces an idea of them. But, as in this latter case, both the objects of the mind are ideas, notwithstanding there is an easy transition between them: that transition alone is not able to give a superior vivacity to any of the ideas, for want of some immediate impression.⁴

No one can doubt but causation has the same influence as the other two relations of resemblance and contiguity. Superstitious people are fond of the relics of saints and holy men, for the same reason that they seek after types or images in order to enliven their devotion and give them a more intimate and strong conception of those exemplary lives which they desire to imitate. Now it is evident that one of the best relics which a devotee could procure would be the handiwork of a saint; and if his clothes and furniture are ever to be considered in this light, it is because they were once at his disposal and were moved and affected by him; in which respect they are to be considered as imperfect effects, and as connected with him by a shorter chain of consequences than any of those by which we learn the reality of his existence.

Suppose that the son of a friend who had been long dead or absent were presented to us; it is evident that this object would instantly revive its correlative idea and recall to our thoughts all past intimacies and familiarities in more lively color than they would otherwise have appeared

to us. This is another phenomenon which seems to prove the principle above mentioned.

We may observe that in these phenomena the belief of the correlative object is always presupposed, without which the relation could have no effect. The influence of the picture supposes that we believe our friend to have once existed. Contiguity to home can never excite our ideas of home unless we believe that it really exists. Now I assert that this belief, where it reaches beyond the memory or senses, is of a similar nature and arises from similar causes with the transition of thought and vivacity of conception here explained. When I throw a piece of dry wood into a fire, my mind is immediately carried to conceive that it augments, not extinguishes, the flame. This transition of thought from the cause to the effect proceeds not from reason. It derives its origin altogether from custom and experience. And, as it first begins from an object present to the senses, it renders the idea or conception of flame more strong or lively than any loose floating reverie of the imagination. The idea arises immediately. The thought moves instantly toward it and conveys to it all that force of conception which is derived from the impression present to the senses. When a sword is leveled at my breast, does not the idea of wound and pain strike me more strongly than when a glass of wine is presented to me, even though by accident this idea should occur after the appearance of the latter object? But what is

there in this whole matter to cause such a strong conception except only a present object and a customary transition to the idea of another object which we have been accustomed to conjoin with the former? This is the whole operation of the mind in all our conclusions concerning matter of fact and existence; and it is a satisfaction to find some analogies by which it may be explained. The transition from a present object does in all cases give strength and solidity to the related idea.

Here, then, is a kind of pre-established harmony between the course of nature and the succession of our ideas; and though the powers and forces by which the former is governed be wholly unknown to us, yet our thoughts and conceptions have still, we find, gone on in the same train with the other works of nature. Custom is that principle by which this correspondence has been effected, so necessary to the subsistence of our species and the regulation of our conduct in every circumstance and occurrence of human life. Had not the presence of an object instantly excited the idea of those objects commonly conjoined with it, all our knowledge must have been limited to the narrow sphere of our memory and senses, and we should never have been able to adjust means to ends or employ our natural powers either to the producing of good or avoiding of evil. Those who delight in the discovery and contemplation of final causes have here ample subject to employ their wonder and admiration.

I shall add, for a further confirmation of the foregoing theory, that as this operation of the mind, by which we infer like effects from like causes, and vice versa, is so essential to the subsistence of all human creatures, it is not probable that it could be trusted to the fallacious deductions of our reason, which is slow in its operations, appears not, in any degree, during the first years of infancy, and, at best, is in every age and period of human life extremely liable to error and mistake. It is more conformable to the ordinary wisdom of nature to secure so necessary an act of the mind by some instinct or mechanical tendency which may be infallible in its operations, may discover itself at the first appearance of life and thought, and may be independent of all the labored deductions of the understanding. As nature has taught us the use of our limbs without giving us the knowledge of the muscles and nerves by which they are actuated, so has she implanted in us an instinct which carries forward the thought in a correspondent course to that which she has established among external objects, though we are ignorant of those powers and forces on which this regular course and succession of objects totally depends.

SECTION VI. OF PROBABILITY⁵

Though there be no such thing as chance in the world, our ignorance of the real cause of any event has the same influence on the understanding and begets a like species of belief or opinion.

There is certainly a probability which arises from a superiority of chances on any side; and, according as this superiority increases and surpasses the opposite chances, the probability receives a proportionable increase and begets still a higher degree of belief or assent to that side in which we discover the superiority. If a die were marked with one figure or number of spots on four sides, and with another figure or number of spots on the two remaining sides, it would be more probable that the former would turn up than the latter, though, if it had a thousand sides marked in the same manner, and only one side different, the probability would be much higher and our belief or expectation of the event more steady and secure. This process of the thought or reasoning may seem trivial and obvious; but to those who consider it more narrowly it may, perhaps, afford matter for curious speculation.

It seems evident that when the mind looks forward to discover the event which may result from the throw of such a die, it considers the turning up of each particular side as alike probable; and this is the very nature of chance, to render all the particular events comprehended in it entirely equal. But finding a greater number of sides concur in the one event than in the other, the mind is carried more frequently to that event and meets it oftener in revolving the various possibilities or chances on which the ultimate result depends. This concurrence of several views in one particular event begets immediately, by an explicable contrivance of nature, the

sentiment of belief and gives that event the advantage over its antagonist which is supported by a smaller number of views and recurs less frequently to the mind. If we allow that belief is nothing but a firmer and stronger conception of an object than what attends the mere fictions of the imagination, this operation may, perhaps, in some measure be accounted for. The concurrence of these several views or glimpses imprints the idea more strongly on the imagination, gives it superior force and vigor, renders its influence on the passions and affections more sensible, and, in a word, begets that reliance or security which constitutes the nature of belief and opinion.

The case is the same with the probability of causes as with that of chance. There are some causes which are entirely uniform and constant in producing a particular effect, and no instance has ever yet been found of any failure or irregularity in their operation. Fire has always burned, and water suffocated, every human creature. The production of motion by impulse and gravity is a universal law which has hitherto admitted of no exception. But there are other causes which have been found more irregular and uncertain, nor has rhubarb always proved a purge, or opium a soporific, to everyone who has taken these medicines. It is true, when any cause fails of producing its usual effect, philosophers ascribe not this to any irregularity in nature, but suppose that some secret causes in the particular structure of parts have prevented the operation. Our reasonings, however, and conclusions concerning the event are the same as if this principle had no place. Being determined by custom to transfer the past to the future in all our inferences, where the past has been entirely regular and uniform we expect the event with the greatest assurance and leave no room for any contrary supposition. But where different effects have been found to follow from causes which are to appearance exactly similar, all these various effects must occur to the mind in transferring the past to the future, and enter into our consideration when we determine the probability of the event. Though we give the preference to that which has been found most usual, and believe that this effect will exist, we must not overlook the other

effects, but must assign to each of them a particular weight and authority in proportion as we have found it to be more or less frequent. It is more probable, in almost every country of Europe, that there will be frost sometime in January than that the weather will continue open throughout the whole month, though this probability varies according to the different climates, and approaches to a certainty in the more northern kingdoms. Here, then, it seems evident that when we transfer the past to the future in order to determine the effect which will result from any cause, we transfer all the different events in the same proportion as they have appeared in the past, and conceive one to have existed a hundred times, for instance, another ten times, and another once. As a great number of views do here concur in one event, they fortify and confirm it to the imagination, beget that sentiment which we call "belief," and give its object the preference above the contrary event which is not supported by an equal number of experiments and recurs not so frequently to the thought in transferring the past to the future. Let anyone try to account for this operation of the mind upon any of the received systems of philosophy, and he will be sensible of the difficulty. For my part, I shall think it sufficient if the present hints excite the curiosity of philosophers and make them sensible how defective all common theories are in treating of such curious and such sublime subjects.

SECTION VII. OF THE IDEA OF NECESSARY CONNECTION Part I

The great advantage of the mathematical sciences above the moral consists in this, that the ideas of the former, being sensible, are always clear and determinate, the smallest distinction between them is immediately perceptible, and the same terms are still expressive of the same ideas without ambiguity or variation. An oval is never mistaken for a circle, nor a hyperbola for an ellipsis. The isosceles and scalenum are distinguished by boundaries more exact than vice and virtue, right and wrong. If any term be defined in geometry, the mind readily, of itself substitutes on all occasions

the definition for the term defined, or, even when no definition is employed, the object itself may be presented to the senses and by that means be steadily and clearly apprehended. But the finer sentiments of the mind, the operations of the understanding, the various agitations of the passions, though really in themselves distinct, easily escape us when surveyed by reflection, nor is it in our power to recall the original object as often as we have occasion to contemplate it. Ambiguity, by this means, is gradually introduced into our reasonings: similar objects are readily taken to be the same, and the conclusion becomes at last very wide of the premises.

One may safely, however, affirm that if we consider these sciences in a proper light, their advantages and disadvantages nearly compensate each other and reduce both of them to a state of equality. If the mind, with greater facility, retains the ideas of geometry clear and determinate, it must carry on a much longer and more intricate chain of reasoning and compare ideas much wider of each other in order to reach the abstruser truths of that science. And if moral ideas are apt, without extreme care, to fall into obscurity and confusion, the inferences are always much shorter in these disquisitions, and the intermediate steps which lead to the conclusion much fewer than in the sciences which treat of quantity and number. In reality, there is scarcely a proposition in Euclid so simple as not to consist of more parts than are to be found in any moral reasoning which runs not into chimera and conceit. Where we trace the principles of the human mind through a few steps, we may be very well satisfied with our progress, considering how soon nature throws a bar to all our inquiries concerning causes and reduces us to an acknowledgment of our ignorance. The chief obstacle, therefore, to our improvements in the moral or metaphysical sciences is the obscurity of the ideas and ambiguity of the terms. The

principal difficulty in the mathematics is the length of inferences and compass of thought requisite to the forming of any conclusion. And, perhaps, our progress in natural philosophy is chiefly retarded by the want of proper experiments and phenomena, which are often discovered by chance and cannot always be found when requisite, even by the most diligent and prudent inquiry. As moral philosophy seems hitherto to have received less improvement than either geometry or physics, we may conclude that if there be any difference in this respect among these sciences, the difficulties which obstruct the progress of the former require superior care and capacity to be surmounted.

There are no ideas which occur in metaphysics more obscure and uncertain than those of "power," "force," "energy," or "necessary connection," of which it is every moment necessary for us to treat in all our disquisitions. We shall, therefore, endeavor in this Section to fix, if possible, the precise meaning of these terms and thereby remove some part of that obscurity which is so much complained of in this species of philosophy.

It seems a proposition which will not admit of much dispute that all our ideas are nothing but copies of our impressions, or, in other words, that it is impossible for us to think of anything which we have not antecedently felt, either by our external or internal senses. I have endeavored⁶ to explain and prove this proposition, and have expressed my hopes that by a proper application of it men may reach a greater clearness and precision in philosophical reasonings than what they have hitherto been able to attain. Complex ideas may, perhaps, be well known by definition, which is nothing but an enumeration of those parts or simple ideas that compose them. But when we have pushed up definitions to the most simple ideas and find still some ambiguity and obscurity, what resources are we then possessed of? By what invention can we throw light upon these ideas and render them altogether precise and determinate to our intellectual view? Produce the impressions or original sentiments from which the ideas are copied. These impressions are all strong and sensible. They admit not of ambiguity. They are not only placed in a full light themselves, but may throw light on their correspondent ideas, which lie in obscurity. And by this means we may perhaps attain a new microscope or species of optics by which, in the moral sciences, the most minute and most simple ideas may be so enlarged as to fall readily under our apprehension and be equally known with the grossest

and most sensible ideas that can be the object of our inquiry.

To be fully acquainted, therefore, with the idea of power or necessary connection, let us examine its impression and, in order to find the impression with greater certainty, let us search for it in all the sources from which it may possibly be derived.

When we look about us towards external objects and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connection, any quality which binds the effect to the cause and renders the one an infallible consequence of the other. We only find that the one does actually in fact follow the other. The impulse of one billiard ball is attended with motion in the second. This is the whole that appears to the outward senses. The mind feels no sentiment or inward impression from this succession of objects; consequently, there is not, in any single particular instance of cause and effect, anything which can suggest the idea of power or necessary connection.

From the first appearance of an object we never can conjecture what effect will result from it. But were the power or energy of any cause discoverable by the mind, we could foresee the effect, even without experience, and might, at first, pronounce with certainty concerning it by mere dint of thought and reasoning.

In reality, there is no part of matter that does ever, by its sensible qualities, discover any

power or energy, or give us ground to imagine that it could produce anything, or be followed by any other object, which we could denominate its effect. Solidity, extension, motion-these qualities are all complete in themselves and never point out any other event which may result from them. The scenes of the universe are continually shifting, and one object follows another in an uninterrupted succession; but the power or force which actuates the whole machine is entirely concealed from us and never discovers itself in any of the sensible qualities of body. We know that, in fact, heat is a constant attendant of flame; but what is the connection between them we have no room so much as to conjecture or imagine. It is impossible, therefore, that the idea of power can be derived from the contemplation of bodies in single instances of their operation, because no bodies ever discover any power which can be the original of this idea.⁷

Since, therefore, external objects as they appear to the senses give us no idea of power or necessary connection by their operation in particular instances, let us see whether this idea be derived from reflection on the operations of our own minds and be copied from any internal impression. It may be said that we are every moment conscious of internal power while we feel that, by the simple command of our will, we can move the organs of our body or direct the faculties of our mind. An act of volition produces motion in our limbs or raises a new idea in our imagination. This influence of the will we know by consciousness. Hence we acquire the idea of power or energy, and are certain that we ourselves and all other intelligent beings are possessed of power. This idea, then, is an idea of reflection since it arises from reflecting on the operations of our own mind and on the command which is exercised by will both over the organs of the body and faculties of the soul.

We shall proceed to examine this pretension and, first, with regard to the influence of volition over the organs of the body. This influence, we may observe, is a fact which, like all other natural events, can be known only by experience, and can never be foreseen from any apparent energy or power in the cause which connects it with the effect and renders the one an infallible consequence of the other. The motion of our body follows upon the command of our will. Of this we are every moment conscious. But the means by which this is effected, the energy by which the will performs so extraordinary an operation-of this we are so far from being immediately conscious that it must forever escape our most diligent inquiry.

For, first, is there any principle in all nature more mysterious than the union of soul with body, by which a supposed spiritual substance acquires such an influence over a material one that the most refined thought is able to actuate the grossest matter? Were we empowered by a secret wish to remove mountains or control the planets in their orbit, this extensive authority would not be more extraordinary, nor more

beyond our comprehension. But if, by consciousness, we perceived any power or energy in the will, we must know this power; we must know its connection with the effect; we must know the secret union of soul and body, and the nature of both these substances by which the one is able to operate in so many instances upon the other.

Secondly, we are not able to move all the organs of the body with a like authority, though we cannot assign any reason, besides experience, for so remarkable a difference between one and the other. Why has the will an influence over the tongue and fingers, not over the heart and liver? This question would never embarrass us were we conscious of a power in the former case, not in the latter. We should then perceive, independent of experience, why the authority of the will over organs of the body is circumscribed within such particular limits. Being in that case fully acquainted with the power or force by which it operates, we should also know why its influence reaches precisely to such boundaries, and no further.

A man suddenly struck with a palsy in the leg or arm, or who had newly lost those members, frequently endeavors, at first, to move them and employ them in their usual offices. Here he is as much conscious of power to command such limbs as a man in perfect health is conscious of power to actuate any member which remains in its natural state and condition. But consciousness never deceives. Consequently, neither in the one case nor in the other are we ever conscious of any power. We learn the influence of our will from experience alone. And experience only teaches us how one event constantly follows another, without instructing us in the secret connection which binds them together and renders them inseparable.

Thirdly, we learn from anatomy that the immediate object of power in voluntary motion is not the member itself which is moved, but certain muscles and nerves and animal spirits, and, perhaps, something still more minute and more unknown, through which the motion is successfully propagated ere it reach the member itself whose motion is the immediate object of volition. Can there be a more certain proof that the power by which this whole operation is performed, so far from being directly and fully known by an inward sentiment or consciousness, is to the last degree mysterious and unintelligible? Here the mind wills a certain event; immediately another event, unknown to ourselves and totally different from the one intended, is produced. This event produces another, equally unknown, till, at last, through a long succession the desired event is produced. But if the original power were felt, it must be known; were it known, its effect must also be known, since all power is relative to its effect. And, vice versa, if the effect be not known, the power cannot be known nor felt. How indeed can we be conscious of a power to move our limbs when we have no such power, but only that to move certain animal spirits which, though they produce at last the motion of our limbs, yet operate in such a manner as is wholly beyond our comprehension?

We may therefore conclude from the whole, I hope, without any temerity, though with assurance, that our idea of power is not copied from any sentiment or consciousness of power within ourselves when we give rise to animal motion or apply our limbs to their proper use and office. That their motion follows the command of the will is a matter of common experience, like other natural events; but the power or energy by which this is effected, like that in other natural events, is unknown and inconceivable.⁸

Shall we then assert that we are conscious of a power or energy in our own minds when, by an act or command of our will, we raise up a new idea, fix the mind to the contemplation of it, turn it on all sides, and at last dismiss it for some other idea when we think that we have surveyed it with sufficient accuracy? I believe the same arguments will prove that even this command of the will gives us no real idea of force or energy.

First, it must be allowed that when we know a power, we know that very circumstance in the cause by which it is enabled to produce the effect, for these are supposed to be synonymous. We must, therefore, know both the cause and effect and the relation between them. But do we pretend to be acquainted with the nature of the human soul and the nature of an idea, or the aptitude of the one to produce the other? This is a

real creation, a production of something out of nothing, which implies a power so great that it may seem, at first sight, beyond the reach of any being less than infinite. At least it must be owned that such a power is not felt, nor known, nor even conceivable by the mind. We only feel the event, namely, the existence of an idea consequent to a command of the will; but the manner in which this operation is performed, the power by which it is produced, is entirely beyond our comprehension.

Secondly, the command of the mind over itself is limited, as well as its command over

the body; and these limits are not known by reason or any acquaintance with the nature of cause and effect, but only by experience and observation, as in all other natural events and in the operation of external objects. Our authority over our sentiments and passions is much weaker than that over our ideas; and even the latter authority is circumscribed within very narrow boundaries. Will any one pretend to assign the ultimate reason of these boundaries, or show why the power is deficient in one case, not in another.

Thirdly, this self-command is very different at different times. A man in health possesses more of it than one languishing with sickness. We are more master of our thoughts in the morning than in the evening; fasting, than after a full meal. Can we give any reason for these variations except experience? Where then is the power of which we pretend to be conscious? Is there not here, either in a spiritual or material substance, or both, some secret mechanism or structure of parts upon which the effect depends, and which, being entirely unknown to us, renders the power or energy of the will equally unknown and incomprehensible?

Volition is surely an act of the mind with which we are sufficiently acquainted. Reflect upon it. Consider it on all sides. Do you find anything in it like this creative power by which it raises from nothing a new idea and, with a kind of fiat, imitates the omnipotence of its Maker, if I may be allowed so to speak, who called forth into existence all the various scenes of nature? So far from being conscious of this energy in the will, it requires as certain experience as that of which we are possessed to convince us that such extraordinary effects do ever result from a simple act of volition.

The generality of mankind never find any difficulty in accounting for the more common and familiar operations of nature, such as the descent of heavy bodies, the growth of plants, the generation of animals, or the nourishment of bodies by food; but suppose that in all these cases they perceive the very force or energy of the cause by which it is connected with its effect, and is forever infallible in its operation. They acquire, by long habit, such a turn of mind that upon the appearance of the cause they immediately expect, with assurance, its usual attendant, and hardly conceive it possible that any other event could result from it. It is only on the discovery of extraordinary phenomena, such as earthquakes, pestilence, and prodigies of any kind, that they find themselves at a loss to assign a proper cause and to explain the manner in which the effect is produced by it. It is usual for men, in such difficulties, to have recourse to some invisible intelligent principle as the immediate cause of that event which surprises them, and which they think cannot be accounted for from the common powers of nature. But philosophers, who carry their scrutiny a little further, immediately perceive that, even in the most familiar events, the energy of the cause is as unintelligible as in the most unusual, and that we only learn by experience the frequent conjunction of objects, without being ever able to comprehend anything like connection between them. Here, then, many philosophers think themselves obliged by reason to have recourse, on all occasions, to the same principle which the vulgar never appeal to but in cases that appear miraculous and supernatural. They acknowledge mind and intelligence to be, not only the ultimate and original cause of all things, but the immediate and sole cause of every event which appears in nature. They pretend that those objects which are commonly denominated "causes" are in reality nothing but "occasions," and that the true and direct principle of every effect is not any power or force in nature, but a volition of the Supreme Being, who wills that such particular objects should forever be conjoined with each other. Instead of saying that one billiard ball moves another by a force which

it has derived from the author of nature, it is the Deity himself, they say, who, by a particular volition, moves the second ball, being determined to this operation by the impulse of

the first ball, in consequence of those general laws which he has laid down to himself in the government of the universe. But philosophers, advancing still in their inquiries, discover that as we are totally ignorant of the power on which depends the mutual operation of bodies, we are no less ignorant of that power on which depends the operation of mind on body, or of body on mind; nor are we able, either from our senses or consciousness, to assign the ultimate principle in the one case more than in the other. The same ignorance, therefore, reduces them to the same conclusion. They assert that the Deity is the immediate cause of the union between soul and body, and that they are not the organs of sense which, being agitated by external objects, produce sensations in the mind; but that it is a particular volition of our omnipotent Maker which excites such a sensation in consequence of such a motion in the organ. In like manner, it is not any energy in the will that produces local motion in our members: It is God himself, who is pleased to second our will, in itself impotent, and to command that motion which we erroneously attribute to our own power and efficacy. Nor do philosophers stop at this conclusion. They sometimes extend the same inference to the mind itself in its internal operations. Our mental vision or conception of ideas is nothing but a revelation made to us by our Maker. When we voluntarily turn our thoughts to any object and raise up its image in the fancy, it is not the will which creates that idea, it is the universal Creator who discovers it to the mind and renders it present to us.

Thus, according to these philosophers, everything is full of God. Not content with the principle that nothing exists but by his will, that nothing possesses any power but by his concession, they rob nature and all created beings of every power in order to render their dependence on the Deity still more sensible and immediate. They consider not that by this theory they diminish, instead of magnifying, the grandeur of those attributes which they affect so much to celebrate. It argues, surely, more power in the Deity to delegate a certain degree of power to inferior creatures than to produce everything by his own immediate volition. It argues more wisdom to contrive at first the fabric of the world with such perfect foresight that of itself, and by its proper operation, it may serve all the purposes of Providence than if the great Creator were obliged every moment to adjust its parts and animate by his breath all the wheels of that stupendous machine.

But if we would have a more philosophical confutation of this theory, perhaps the two following reflections may suffice:

First, it seems to me that this theory of the universal energy and operation of the Supreme Being is too bold ever to carry conviction with it to a man sufficiently apprised of the weakness of human reason and the narrow limits to which it is confined in all its operations. Though the chain of arguments which conduct to it were ever so logical, there must arise a strong suspicion, if not an absolute assurance, that it has carried us quite beyond the reach of our faculties when it leads to conclusions so extraordinary and so remote from common life and experience. We are got into fairyland long ere we have reached the last steps of our theory; and there we have no reason to trust our common methods of arguments or to think that our usual analogies and probabilities have any authority. Our line is too short to fathom such immense abysses. And however we may flatter ourselves that we are guided, in every step which we take, by a kind of verisimilitude and experience, we may be assured that this fancied experience has no authority when we thus apply it to subjects that lie entirely out of the sphere of experience. But on this we shall have occasion to touch afterwards.⁹

Secondly, I cannot perceive any force in the arguments on which this theory is founded. We are ignorant, it is true, of the manner in which bodies operate on each other. Their force or

energy is entirely incomprehensible. But are we not equally ignorant of the manner or force by which a mind, even the Supreme Mind, operates, either on itself or on body? Whence, I beseech you, do we acquire any idea of it? We have no sentiment or consciousness of this power in ourselves. We have no idea of the Supreme Being but what we learn from reflection on our own faculties. Were our ignorance, therefore, a good reason for rejecting anything, we should be led into that principle of denying all energy in the Supreme Being, as much as in the grossest matter. We surely comprehend as little the operations of the one as of the other. Is it more difficult to conceive that motion may arise from impulse than that it may arise from volition? All we know is our profound ignorance in both

Part II

But to hasten to a conclusion of this argument, which is already drawn out to too great a length: We have sought in vain for an idea of power or necessary connection in all the sources from which we could suppose it to be derived. It appears that in single instances of the operation of bodies we never can, by our utmost scrutiny, discover anything but one event following another, without being able to comprehend any force or power by which the cause operates or any connection between it and its supposed effect. The same difficulty occurs in contemplating the operations of mind on body, where we observe the motion of the latter to follow upon the volition of the former, but are not able to observe or conceive the tie which binds together the motion and volition, or the energy, by which the mind produces this effect. The authority of the will over its own faculties and ideas is not a whit more comprehensible, so that, upon the whole, there appears not, throughout all nature, any one instance of connection which is conceivable by us. All events seem entirely loose and separate. One event follows another, but we never can observe any tie between them. They seem conjoined, but never connected. And as we can have no idea of anything which never appeared to our outward sense or inward sentiment, the necessary conclusion seems to be that we have no idea of connection or power at all, and that these words are absolutely without any meaning when employed either in philosophical reasonings or common life.

But there still remains one method of avoiding this conclusion, and one source which we have not yet examined. When any natural object or event is presented, it is impossible for us, by any sagacity or penetration, to discover, or even conjecture, without experience, what event will result from it, or to carry our foresight beyond that object which is immediately present to the memory and senses. Even after one instance or experiment where we have observed a particular event to follow upon another, we are not entitled to form a general rule or foretell what will happen in like cases, it being justly esteemed an unpardonable temerity to judge the whole course of nature from one single experiment, however accurate or certain. But when one particular species of events has always, in all instances, been conjoined with another, we make no longer any scruple of foretelling one upon the appearance of the other, and of employing that reasoning which can alone assure us of any matter of fact or existence. We then call the one object "cause," the other "effect." We suppose that there is some connection between them, some power in the one by which it infallibly produces the other and operates with the greatest certainty and strongest necessity.

It appears, then, that this idea of a necessary connection among events arises from a number of similar instances which occur, of the constant conjunction of these events; nor can that idea ever be suggested by any one of these instances surveyed in all possible lights and positions. But there is nothing in a number of instances, different from every single instance, which is supposed to be exactly similar, except only that after a repetition of similar instances the

mind is carried by habit, upon the appearance of one event, to expect its usual attendant and to believe that it will exist. This connection, therefore, which we feel in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connection. Nothing further is in the case. Contemplate the subject on all sides, you will never find any other origin of that idea. This is the sole difference between one instance, from which we can never receive the idea of connection, and a number of similar instances by which it is suggested. The first time a man saw the communication of

motion by impulse, as by the shock of two billiard balls, he could not pronounce that the one event was connected, but only that it was conjoined with the other. After he has observed several instances of this nature, he then pronounces them to be connected. What alteration has happened to give rise to this new idea of connection? Nothing but that he now feels these events to be connected in his imagination, and can readily foretell the existence of one from the appearance of the other. When we say, therefore, that one object is connected with another, we mean only that they have acquired a connection in our thought and give rise to this inference by which they become proofs of each other's existence—a conclusion which is somewhat extraordinary, but which seems founded on sufficient evidence. Nor will its evidence be weakened by any general diffidence of the understanding or skeptical suspicion concerning every conclusion which is new and extraordinary. No conclusions can be more agreeable to skepticism than such as make discoveries concerning the weakness and narrow limits of human reason and capacity.

And what stronger instance can be produced of the surprising ignorance and weakness of the understanding than the present? For surely, if there be any relation among objects which it imports us to know perfectly, it is that of cause and effect. On this are founded all our reasonings concerning matter of fact or existence. By means of it alone we attain any assurance concerning objects which are removed from the present testimony of our memory and senses. The only immediate utility of all sciences is to teach us how to control and regulate future events by their causes. Our thoughts and inquiries are, therefore, every moment employed about this relation; yet so imperfect are the ideas which we form concerning it that it is impossible to give any just definition of cause, except what is drawn from something extraneous and foreign to it. Similar objects are always conjoined with similar. Of this we have experience. Suitably to this experience, therefore, we may define a cause to be an object followed by another, and where all the objects, similar to the first, are followed by objects similar to the second. Or, in other words, where, if the first object had not been, the second never had existed. The appearance of a cause always conveys the mind, by a customary transition, to the idea of the effect. Of this also we have experience. We may, therefore, suitably to this experience, form another definition of cause and call it an object followed by another, and whose appearance always conveys the thought to that other. But though both these definitions be drawn from circumstances foreign to the cause, we cannot remedy this inconvenience or attain any more perfect definition which may point out that circumstance in the cause which gives it a connection with its effect. We have no idea of this connection, nor even any distinct notion what it is we desire to know when we endeavor at a conception of it. We say, for instance, that the vibration of this string is the cause of this particular sound. But what do we mean by that affirmation? We either mean that this vibration is followed by this sound, and that all similar vibrations have been followed by similar sounds; or, that this vibration is followed by this sound, and that, upon the appearance of one, the mind anticipates the senses and forms immediately an idea of the other. We may consider the relation

of cause and effect in either of these two lights; but beyond these we have no idea of it. I t

To recapitulate, therefore, the reasonings of this Section: Every idea is copied from some preceding impression or sentiment; and where we cannot find any impression, we may be certain that there is no idea. In all single instances of the operation of bodies or minds there is nothing that produces any impression, nor consequently can suggest any idea, of power or necessary connection. But when many uniform instances appear, and the same object is always followed by the same event, we then begin to entertain the notion of cause and connection. We then feel a new sentiment or impression, to wit, a customary connection in the thought or imagination between one object and its usual attendant; and this sentiment is the original of that idea which we seek for. For as this idea arises from a number of similar instances, and not from any single instance, it must arise from that circumstance in which the number of instances differ from every individual instance. But this customary connection or transition of the imagination is the only circumstance in which they differ. In every other particular they are alike. The first instance which we saw of motion, communicated by the shock of two billiard balls (to return to this obvious illustration), is exactly similar to any instance that may at present occur to us, except only that we could not at first infer one event from the other, which we are enabled to do at present, after so long a course of uniform experience. I know not whether the reader will readily apprehend this reasoning. I am afraid that, should I multiply words about it or throw it into a greater variety of lights, it would only become more obscure and intricate. In all abstract reasonings there is one point of view which, if we can happily hit, we shall go further towards illustrating the subject than by all the eloquence in the world. This point of view we should endeavor to reach, and reserve the flowers of rhetoric for subjects which are more adapted to them.

NOTES

1. It is probable that no more was meant by those who denied innate ideas than that all ideas were copies of our impressions, though it must be confessed that the terms which they employed were not chosen with such caution, nor so exactly defined, as to prevent all mistakes about their doctrine. For what is meant by "innate"? If "innate" be equivalent to "natural," then all the perceptions and ideas of the mind must be allowed to be innate or natural, in whatever sense we take the latter word, whether in opposition to what is uncommon, artificial, or miraculous. If by innate he meant contemporary to our birth, the dispute seems to be frivolous, nor is it worth while to inquire at what time thinking begins, whether before, at, or after our birth. Again, the word "idea" seems to be commonly taken in a very loose sense by Locke and others, as standing for any of our perceptions, our sensations and passions, as well as thoughts. Now, in this sense, I should desire to know what can be meant by asserting that self-love, or resentment of injuries, or the passion between the sexes is not innate?

But admitting these terms "impressions" and "ideas" in the sense above explained, and understanding by "innate" what is original or copied from no precedent perception, then may we assert that all our impressions are innate, and our ideas not innate.

To be ingenuous, I must own it to be my opinion that Locke was betrayed into this question by the schoolmen, who, making use of undefined terms, draw out their disputes to a tedious length without ever touching the point in question. A like ambiguity and circumlocution seem to run through that philosopher's reasonings, on this as well as most other subjects.

2. The word "power" is here used in a loose and popular sense. The more accurate explication of it would give additional evidence to this argument. See Section VII.

3. Nothing is more usual than for writers, even on moral, political, or physical subjects, to

distinguish between reason and experience, and to suppose that these species of argumentation are entirely different from each other. The former are taken for the mere result of our intellectual faculties, which, by considering a priori the nature of things, and examining the effects that must follow from their operation, establish particular principles of science and philosophy. The latter are supposed to be derived entirely from sense and observation, by which we learn what has actually resulted from the operation of particular objects, and are thence able to infer what will for the future result from them. Thus, for instance, the limitations and restraints of civil government and a legal constitution may be defended, either from reason, which, reflecting on the great frailty and corruption of human nature, teaches that no man can safely be trusted with unlimited authority; or from experience and history, which inform us of the enormous abuses that ambition in every age and country has been found to make of so imprudent a confidence.

The same distinction between reason and experience is maintained in all our deliberations concerning the conduct of life, while the experienced statesman, general physician, or merchant, is trusted and followed, and the unpracticed novice, with whatever natural talents endowed, neglected and despised. Though it be allowed that reason may form very plausible conjectures with regard to the consequences of such a particular conduct in such particular circumstances, it is still supposed imperfect without the assistance of experience, which is alone able to give stability and certainty to the maxim derived from study and reflection.

But notwithstanding that this distinction be thus universally received, both in the active and speculative scenes of life, I shall not scruple to pronounce that it is, at bottom, erroneous, or at least superficial.

If we examine those arguments which, in any of the sciences above mentioned, are supposed to be the mere effects of reasoning and reflection, they will be found to terminate at last in some general principle or conclusion for which we can assign no reason but observation and experience. The only difference between them and those maxims which are vulgarly esteemed the result of pure experience is that the former cannot be established without some process of thought, and some reflection on what we have observed, in order to distinguish its circumstances and trace its consequences-whereas, in the latter, the experienced event is exactly and fully similar to that which we infer as the result of any particular situation. The history of a Tiberius or a Nero makes us dread a like tyranny, were our monarchs freed from the restraints of laws and senates; but the observation of any fraud or cruelty in private life is sufficient, with the aid of a little thought, to give us the same apprehension, while it serves as an instance of the general corruption of human nature, and shows us the danger which we must incur by reposing an entire confidence in mankind. In both cases, it is experience which is ultimately the foundation of our inference and conclusion.

There is no man so young and unexperienced as not to have formed from observation many eral and just maxims concerning human affairs and the conduct of life; but it must be confessed that when a man comes to put these in practice he will be extremely liable to error, till time and further experience both enlarge these maxims, and teach him their proper use and application. In every situation or incident there are many particular and seemingly minute circumstances which the man of greatest talents is at first apt to overlook, though on them the justness of his conclusions, and consequently the prudence of his conduct, entirely depend. Not to mention that, to a young beginner, the general observations and maxims occur not always on the proper occasions, nor can be immediately applied with due calmness and distinction. The truth is, an unexperienced reasoner could be no reasoner at all were he absolutely inexperienced; and when we assign that character to anyone, we mean it only in a comparative sense, and

suppose him possessed of experience in a smaller and more imperfect degree.

4. [A footnote containing a long quotation from Cicero, deleted.]

5. Mr. Locke divides all arguments into "demonstrative" and "probable." In this view, we must say that it is only probable that all men must die, or that the sun will rise tomorrow. But to conform our language more to common use, we ought to divide arguments into demonstrations, proofs, and probabilities; by proofs, meaning such arguments from experience as leave no room for doubt or opposition.

6. Section II.

7. Mr. Locke, in his chapter of Power, says that, finding from experience that there are several new productions in matter, and concluding that there must somewhere be a power capable of producing them, we arrive at last by this reasoning at the idea of power. But no reasoning can ever give us a new, original simple idea, as this philosopher himself confesses. This, therefore, can never be the origin of that idea.

8. It may be pretended, that the resistance which we meet with in bodies, obliging us frequently to exert our force and call up all our power, this gives us the idea of force and power. It is this *nisus* or strong endeavor of which we are conscious, that is the original impression from which this idea is copied. But, first, we attribute power to a vast number of objects where we never can suppose this resistance or exertion of force to take place; to the Supreme Being, who never meets with any resistance; to the mind in its command over its ideas and limbs, in common thinking and motion, where the effect follows immediately upon the will, without any exertion or summoning up of force; to inanimate matter, which is not capable of this sentiment. Secondly, this sentiment of an endeavor to overcome resistance has no known connection with any event: What follows it we know by experience, but could not know it a priori. It must, however, be confessed that the animal *nisus* which we experience, though it can afford no accurate precise idea of power, enters very much into that vulgar, inaccurate idea which is formed of it.

9. Section XII. [Not included here.]

10. I need not examine at length the *rois inertiae* which is so much talked of in the new philosophy, and which is ascribed to matter. We find by experience that a body at rest or in motion continues forever in its present state, till put from it by some new cause; and that a body impelled takes as much motion from the impelling body as it acquires itself. These are facts. When we call this a *rois inertiae*, we only mark these facts, without pretending to have any idea of the inert power, in the same

manner as, when we talk of gravity, we mean certain effects without comprehending that active power. It was never the meaning of Sir Isaac Newton to rob second causes of all force or energy, though some of his followers have endeavored to establish that theory upon his authority. On the contrary, that great philosopher had recourse to an ethereal active fluid to explain his universal attraction, though he was so cautious and modest as to allow that it was a mere hypothesis not to be insisted on without more experiments. I must confess that there is something in the fate of opinions a little extraordinary. Descartes insinuated that doctrine of the universal and sole efficacy of the Deity, without insisting on it. Malebranche and other Cartesians made it the foundation of all their philosophy. It had, however, no authority in England. Locke, Clarke, and Cudworth never so much as take notice of it, but suppose all along that matter has a real, though subordinate and derived, power. By what means has it become so prevalent among our modern metaphysicians?

11. According to these explications and definitions, the idea of power is relative as much as that of cause; and both have a reference to an effect, or some other event constantly conjoined

with the former. When we consider the unknown circumstance of an object by which the degree or quantity of its effect is fixed and determined, we call that its power. And accordingly, it is allowed by all philosophers that the effect is the measure of the power. But if they had any idea of power as it is in itself, why could they not measure it in itself? The dispute, whether the force of a body in motion be as its velocity, or the square of its velocity; this dispute, I say, needed not be decided by comparing its effects in equal or unequal times, but by direct mensuration and comparison.

As to the frequent use of the words "force," "power," "energy," etc., which everywhere occur in common conversation as well as in philosophy, that is no proof that we are acquainted, in any instance, with the connecting principle between cause and effect, or can account ultimately for the production of one thing by another. These words, as commonly used, have very loose meanings annexed to them, and their ideas are very uncertain and confused. No animal can put external bodies in motion without the sentiment of a nusus or endeavor; and every animal has a sentiment or feeling from the stroke or blow of an external object that is in motion. These sensations, which are merely animal, and from which we can a priori draw no inference, we are apt to transfer to inanimate objects, and to suppose that they have some such feelings whenever they transfer or receive motion. With regard to energies, which are exerted without our annexing to them any idea of communicated motion, we consider only the constant experienced conjunction of the events; and as we feel a customary connection between the ideas, we transfer that feeling to the objects, as nothing is more usual than to apply to external bodies every internal sensation which they occasion.

An Encounter with David Hume

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A DAY IN THE LIFE OF A HYPOTHETICAL STUDENT

In the physics lecture hall, Professor Salvia has had a bowling ball suspended from a high ceiling by a long rope so that it can swing back and forth like a pendulum. Standing well over to one side of the room, he holds the bowling ball at the tip of his nose. He releases it (taking great care not to give it a push). It swings through a wide arc, gaining considerable speed as it passes through the low portion of its swing beneath the point of suspension from the ceiling. It continues to the other side of the room, where it reaches the end of its path, and then returns. The professor stands motionless as the bowling ball moves faster and faster back toward his nose. As it passes through the midpoint of the return arc, it is again traveling very rapidly, but it begins to slow down, and it stops just at the tip of his nose. Some of the students think he is cool. "This demonstration," he says, "illustrates the faith that the physicist has in nature's regularity." (See Figure 1.)

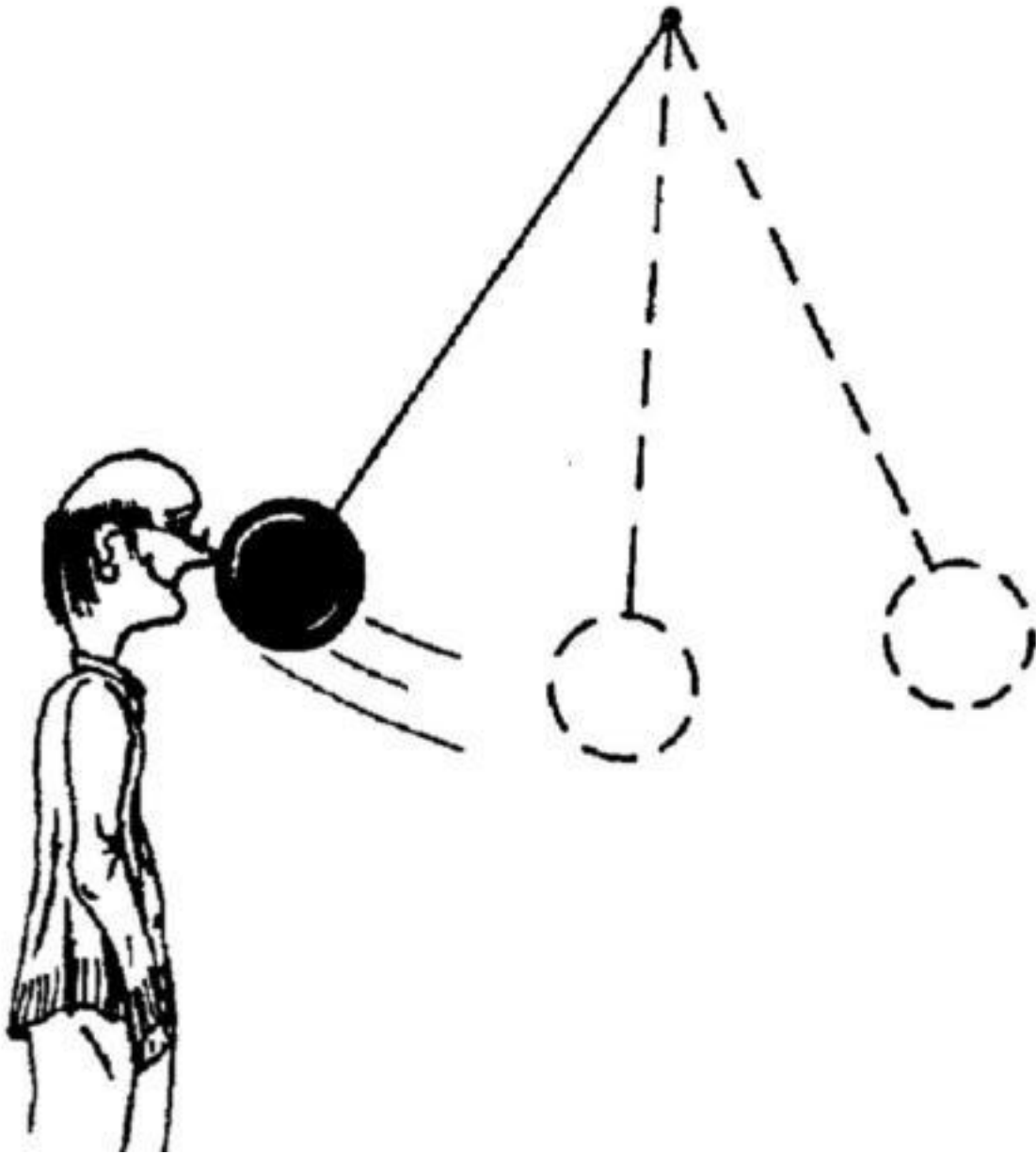


FIGURE 1 Prof Salvia's Pendulum. After swinging to the opposite side of the lecture hall, the bowling ball swings right back to the tip of the prof's nose, which remains motionless during the entire procedure.

Imagine that you have witnessed this demonstration just after your philosophy class, where the subject of discussion was Hume's *Enquiry Concerning Human Understanding*. You raise your hand. "How did you know that the bowling ball would stop where it did, just short of bashing your nose into your face?" you ask.

"This is a standard demonstration," he replies; "I do it every year in this class, and it has often been used by many other physics teachers." In an attempt to inject a little humor, he adds, "If I had had any doubt about its working, I'd have had the teaching assistant do it."

"Are you saving, then, that you trusted the experiment to work this time simply because it

has been tried so many times in the past, and has never failed?" You recall Hume's discussion of the collisions of billiard balls. In the first instance, according to Hume, before you have any experience with material objects colliding with one another, you would not know what to expect when you see a moving billiard ball approaching a stationary one, but after a good deal of experience you confidently expect some motion to be transferred to the stationary ball as a result of the collision. As your experience accumulates, you learn to predict the exact manner in which the second ball will move after being struck by the first. But you cannot really accept that answer, and neither, you feel sure, will your physics professor. Without waiting for an answer, you follow up your first question with another.

"I have this friend," you continue, "who drives like a maniac. It scares me to ride with him, but he always tells me not to worry-he has never had an accident, or even a traffic ticket. Should I conclude-assuming he is telling the truth (just as I assume you are telling me the truth about this demonstration)-that it is as safe for me to ride with him as it is for you to perform the bowling ball trick?"

"It's not the same thing at all," another student chimes in; "you can prove, mathematically, that the pendulum will not swing back beyond its original starting point, but you certainly can't prove mathematically that your friend won't have a wreck. In a way it's just the opposite; you can prove that he is likely to have an accident if he keeps on driving like that."

"What you say is partly right," says Professor Salvia to the second student, "but it isn't only a matter of mathematics. We have to rely upon the laws of physics as well. With the pendulum we were depending mainly upon the law of conservation of energy, one of the most fundamental laws of nature. As the pendulum goes through its

swing, potential energy is transformed into kinetic energy, which is transformed back into potential energy, and so forth. As long as the total amount of energy remains unchanged, my nose is safe."

Since you have not yet studied the concept of energy, you do not worry too much about the details of the explanation. You are satisfied that you will understand why the pendulum behaves as it does when you have learned more about the concepts and laws that were mentioned. But you do remember something Hume wrote. There are two kinds of reasoning: reasoning concerning relations of ideas, and reasoning concerning matters of fact and existence. Mathematical reasoning falls into the former category (relations of ideas) and consequently, by itself, cannot provide any information about matters of fact. The pendulum and the professor's nose are, however, matters of fact, so we need something in addition to mathematics to get the information we want concerning that situation. Professor Salvia has told us what it is we need the laws of nature as well.

Since physics is your last class in the morning, you head for the cafeteria when it is over to get a sandwich and coffee. The philosophy class is still bugging you. What was it Hume said about bread? That we do not know the "secret power" by which it nourishes us? Now we do, of course; we understand metabolism, the mechanism by which the body converts food into energy. Hume (living in the eighteenth century) did not understand about power and energy, as he said repeatedly. He did not know why bread is suitable food for humans, but not for tigers and lions. In biology class, you recall, you studied herbivorous, carnivorous, and omnivorous species. Biologists must now understand why some species can metabolize vegetables and others cannot. Modern physics, chemistry, and biology can provide a complete explanation of the various forms of energy, the ways they can be converted from one form to another, and the ways in which they can be utilized by a living organism.

Taking a sip of the hot coffee, you recall some other things Hume said—for example, remarks about the "connection" between heat and flume. We now know that heat is really a form of energy; that temperature is a measure of the average kinetic energy of the molecules. Now, it seems, we know a great deal about the "secret powers," "energy," etc., that so perplexed Hume. Modern physics knows that ordinary objects are composed of molecules, which are in turn composed of atoms, which are themselves made up of subatomic particles. Modern science can tell us what holds atoms and molecules together, and why the things that consist of them have the properties they do. What was it that Hume said about a piece of ice and a crystal (e.g., a diamond)? That we do not know why one is caused by cold and the other by heat? I'll just bet, you think, that Salvia could answer that one without a bit of trouble. Why, you wonder, do they make us read these old philosophers who are now so out of date? Hume was, no doubt, a very profound thinker in his day, but why do we have to study him now, when we know the answers to all of those questions? If I were majoring in history that might be one thing, but that doesn't happen to be my field of interest. Oh, I suppose they'd say that getting an education means that you have to learn something about the "great minds of the past," but why doesn't the philosophy professor come right out and tell us the answers to these questions? It's silly to pretend that they are still great mysteries.

After lunch, let's imagine, you go to a class in contemporary social and political problems, a class you particularly like because of the lively discussions. A lot of time is spent talking about such topics as population growth, ecology and the environment, energy demands and uses, food production, and pollution. You discuss population trends, the extrapolation of such trends, and the predication that by the year 2000 A.D., world population will reach 7 billion. You consider the various causes and possible effects of increasing concentrations of carbon dioxide in the atmosphere. You discuss solutions to various of these problems in terms of strict governmental controls, economic sanctions and incentives, and voluntary compliance on the part of enlightened and concerned citizens.

"If people run true to form," you interject, "if they behave as they always have, you can be sure that you won't make much progress relying on the good will and good sense of the populace at large."

"What is needed is more awareness and education," another student remarks, "for people can change if they see the need. During World War II people willingly sacrificed in order to support the war effort. They will do the same again, if they see that the emergency is really serious. That's why we need to provide more education and make stronger appeals to their humanitarian concerns."

"What humanitarian concerns?" asks still another student with evident cynicism.

"People will change," says another. "I have been reading that we are entering a new era, the Age of Aquarius, when man's finer, gentler, more considerate nature will be manifest."

"Well, I don't know about all of this astrology," another remarks in earnest tones, "but I do not believe that God will let His world perish if we mend our ways and trust in Him. I have complete faith in His goodness."

You find this statement curiously reminiscent of Professor Salvia's earlier mention of his faith in the regularity of nature.

That night, after dinner, you read an English assignment. By the time you finish it, your throat feels a little scratchy, and you notice that you have a few sniffles. You decide to begin taking large doses of vitamin C; you have read that there is quite some controversy as to whether this helps to ward off colds, but that there is no harm in taking this vitamin in large quantities.

Before going to the drug store to buy some vitamin C, you write home to request some additional funds; you mail your letter in the box by the pharmacy. You return with the vitamin C, take a few of the pills, and turn in for the night-confident that the sun will rise tomorrow morning, and hoping that you won't feel as miserable as you usually do when you catch a cold. David Hume is the farthest thing from your mind.

HUME REVISITED

The next morning, you wake up feeling fine. The sun is shining brightly, and you have no sign of a cold. You are not sure whether the vitamin C cured your cold, or whether it was the good night's sleep, or whether it wasn't going to develop into a real cold regardless. Perhaps, even, it was the placebo effect; in psychology you learned that people can often be cured by totally inert drugs (e.g., sugar pills) if they believe in them. You don't really know what caused your prompt recovery, but frankly, you don't really care. If it was the placebo effect that is fine with you; you just hope it will work as well the next time.

You think about what you will do today. It is Thursday, so you have a philosophy discussion section in the morning and a physics lab in the afternoon. Thursday, you say to yourself, has got to be the lousiest day of the week. The philosophy section is a bore, and the physics lab is a drag. If only it were Saturday, when you have no classes! For a brief moment you consider taking off. Then you remember the letter you wrote last night, think about your budget and your grades, and resign yourself to the prescribed activities for the day.

The leader of the discussion section starts off with the question, "What was the main problem-1 mean the really basic problem-bothering Hume in the Enquiry?" You feel like saying, "Lack of adequate scientific knowledge" (or words to that effect), but restrain yourself. No use antagonizing the guy who will decide what grade to give you. Someone says that he seemed to worry quite a lot about causes and effects, to which the discussion leader (as usual) responds. "But why?" Again, you stifle an impulse to say, "Because he didn't know too much about them."

After much folderol, the leader finally elicits the answer, "Because he wanted to know how we can find out about things we don't actually see (or hear, smell, touch, taste, etc.)."

"In other words," the leader paraphrases, "to examine the basis for making inferences from what we observe to what we cannot (at the moment) observe. Will someone," he continues, "give me an example of something you believe in which you are not now observing?"

You think of the letter you dropped into the box last night, of your home and parents, and of the money you hope to receive. You do not see the letter now, but you are confident it is somewhere in the mails; you do not see your parents now, but you firmly believe they are back home where you left them; you do not yet see the

money you hope to get, but you expect to see it before too long. The leader is pleased when you give those examples. "And what do causes and effects have to do with all of this?" he asks, trying to draw you out a little more. Still thinking of your grade you cooperate. "I believe the letter is somewhere in the mails because I wrote it and dropped it in the box. I believe my parents are at home because they are always calling me up to tell me what to do. And I believe that the money will come as an effect of my eloquent appeal." The leader is really happy with that; you can tell you have an A for today's session.

"But," he goes on, "do you see how this leads us immediately into Hume's next question? If cause-effect relations are the whole basis for our knowledge of things and events we do not observe, how do we know whether one event causes another, or whether they just happen together as a matter of coincidence?" Your mind is really clicking now.

"I felt a cold coming on last night, and I took a massive dose of vitamin C," you report.

"This morning I feel great, but I honestly don't know whether the vitamin C actually cured it."

"Well, how could we go about trying to find out," retorts the discussion leader.

"By trying it again when I have the first symptoms of a cold," you answer, "and by trying it on other people as well." At that point the bell rings, and you leave class wondering whether the vitamin C really did cure your incipient cold.

You keep busy until lunch, doing one thing and another, but sitting down and eating, you find yourself thinking again about the common cold and its cure. It seems to be a well-known fact that the cold is caused by one or more viruses, and the human organism seems to have ways of combating virus infections. Perhaps the massive doses of vitamin C trigger the body's defenses, in some way or other, or perhaps it provides some kind of antidote to the toxic effects of the virus. You don't know much about all of this, but you can't help speculating that science has had a good deal of success in finding causes and cures of various diseases. If continued research reveals the physiological and chemical processes in the cold's infection and in the body's response, then surely it would be possible to find out whether the vitamin C really has any effect upon the common cold or not. It seems that we could ascertain whether a causal relation exists in this instance if only we could discover the relevant laws of biology and chemistry.

At this point in your musings, you notice that it is time to get over to the physics lab. You remember that yesterday morning you were convinced that predicting the outcome of an experiment is possible if you know which physical laws apply. That certainly was the outcome of the discussion in the physics class. Now, it seems, the question about the curative power of vitamin C hinges on exactly the same thing the laws of nature. As you hurry to the lab it occurs to you that predicting the outcome of an experiment, before it is performed, is a first-class example of what you were discussing in philosophy making inferences from the observed to the unobserved. We observe the set-up for the experiment (or demonstration) before it is performed, and we predict the outcome before we observe it. Salvia certainly was confident about the prediction he made. Also, recalling one of Hume's examples, you were at least as confident, when you went to bed last night, that the sun would rise this morning. But Hume seemed to be saying that the basis for this confidence was the fact that the sun has been observed to rise every morning since the dawn of history. "That's wrong," you say to yourself as you reach the physics lab. "My confidence in the rising of the sun is based upon the laws of astronomy. So here we are back at the laws again."

Inside the lab you notice a familiar gadget; it consists of a frame from which five steel balls are suspended so that they hang in a straight line, each one touching its neighbors. Your little brother got a toy like this, in a somewhat smaller size, for his birthday a couple of years ago. You casually raise one of the end balls, and let it swing back. It strikes the nearest of the four balls left hanging, and the ball at the other end swings out (the three balls in the middle keeping their place). The ball at the far end swings back again, striking its neighbor, and then the ball on the near end swings out, almost to the point from which you let it swing originally. The process goes on for a while, with the two end balls alternately swinging out and back. It has a pleasant rhythm. (See Figure 2.)

While you are enjoying the familiar toy, the lab instructor, Dr. Sagro,² comes over to you. "Do you know why just the ball on the far end moves-instead of, say, two on the far end, or all four of the remaining ones-when the ball on this end strikes?"

"Not exactly, but I suppose it has something to do with conservation of energy," you reply, recalling what Salvia said yesterday in answer to the question about the bowling ball.

"That's right," says Dr. Sagro, "but it also depends upon conservation of momentum."

Before you have a chance to say anything she continues, "Let me ask you another question. What would happen if you raised two balls at this end, and let them swing together toward the remaining three?"

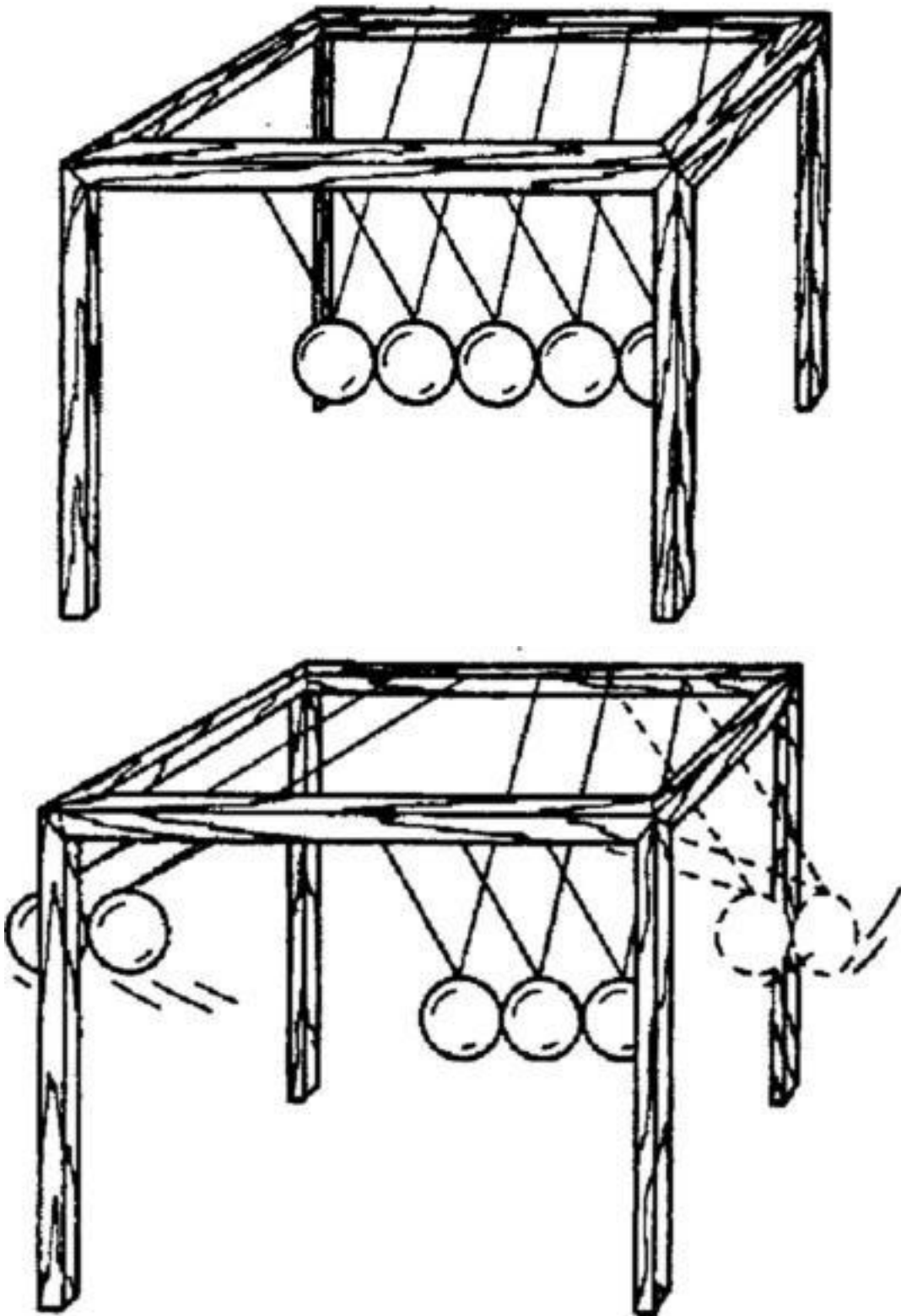


FIGURE 2 The Energy-Momentum Toy. When two balls at the right collide with the

remaining three, two balls swing away from the left side. What happens when three on the right collide with the remaining two?

"I think two balls will swing away at the other end," you reply, remembering the way your brother's toy worked.

"Why don't you test it to find out if you are right?" says the instructor. You do, and you find that the result is as you had predicted. Without saying anything about it, you assume that this, too, can be explained by means of the laws of conservation of energy and momentum.

Dr. Sagro poses another question. "What will happen," she asks, "if you start by swinging three balls from this end?" Since there are only two remaining balls you don't know what to say, so you confess ignorance. She suggests you try it, in order to find out what will happen. When you do, you see that three balls swing to the other side, and three swing back again; the middle ball swings back and forth, acting as the third ball in each group. This was a case in which you didn't know what to expect as a result until you tried the experiment.³ This was like some of Hume's examples; not until you have actually had the experience do you know what result to expect. But there is also something different. Hume said that you must try the experiment many times in order to know what to expect; nevertheless, after just one trial you are sure what will happen whenever the experiment is repeated. This makes it rather different from the problem of whether vitamin C

cured your cold. In that case, it seemed necessary to try the experiment over and over again, preferably with a number of different people. Reflecting upon this difference, you ask the lab instructor a crucial question, "If you knew the laws of conservation of momentum and energy, but had never seen the experiment with the three balls performed, would you have been able to predict the outcome?"

"Yes," she says simply.

"Well," you murmur inaudibly, "it seems as if the whole answer to Hume's problem regarding inferences about things we do not immediately observe, including predictions of future occurrences, rests squarely upon the laws of nature."

KNOWING THE LAWS

Given that the laws are so fundamental, you decide to find out more about them. The laws of conservation of energy and momentum are close at hand, so to speak, so you decide to start there. "O.K.," you say to the lab instructor, "what are these laws of nature, which enable you to predict so confidently how experiments will turn out before they are performed? I'd like to learn something about them."

"Fine," she says, delighted with your desire to learn; "let's start with conservation of momentum. It's simpler than conservation of energy, and we can demonstrate it quite easily."⁴ (See Figure 3.)

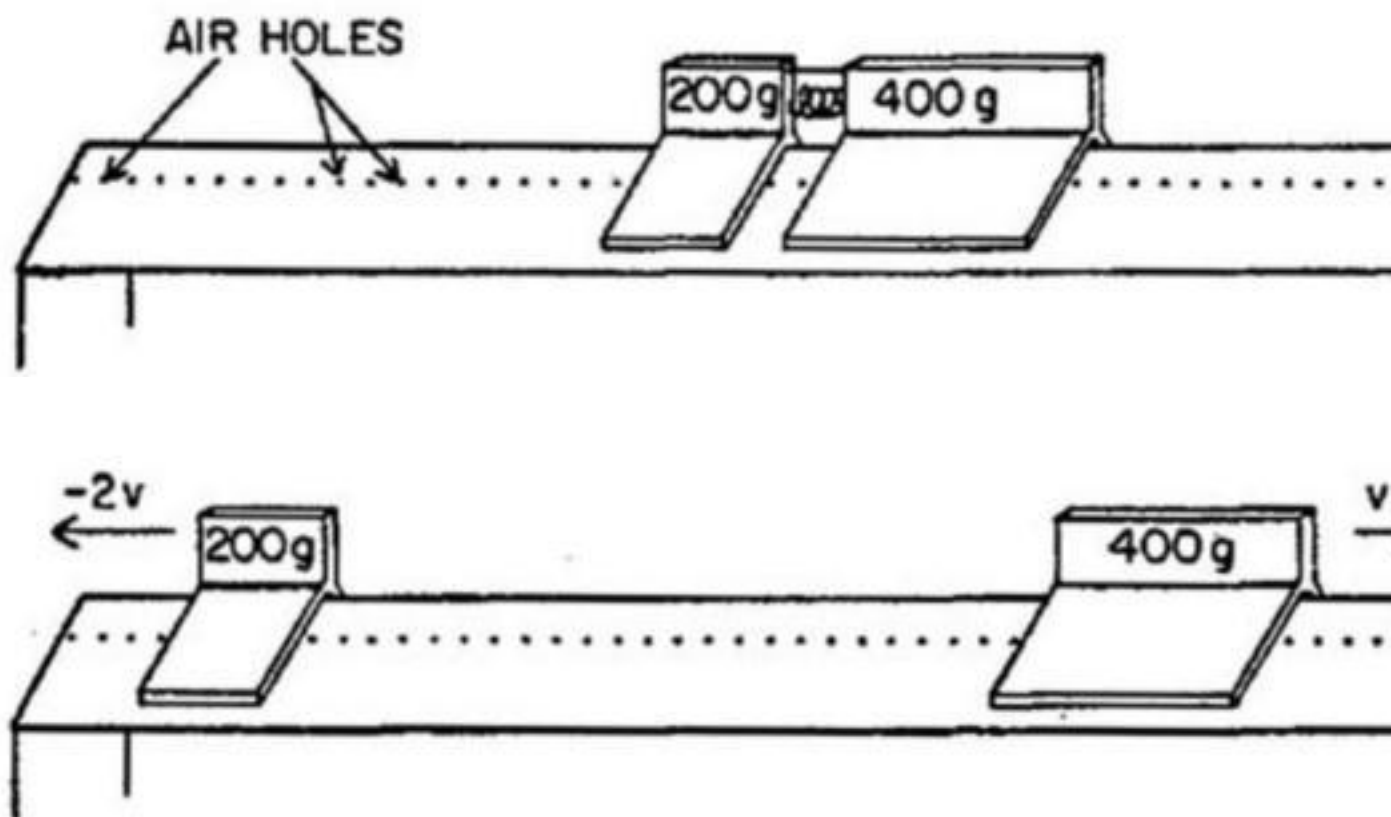


FIGURE 3 Cars on the Air Track. Top: Cars tied together against spring under tension. Bottom: Cars moving apart after "explosion." $400\text{g} \times v + 200\text{g} \times (-2v) = 0$. Momentum is conserved.

Your laboratory contains a standard piece of equipment—an air track—on which little cars move back and forth. The track is made of metal with many tiny holes through which air is blown. The cars thus ride on a thin cushion of air; they move back and forth almost without friction. Some of the cars are equipped with spring bumpers, so that they will bounce off of one another upon impact, while others have coupling devices which lock them together upon contact. Dr. Sagro begins by explaining what is meant by the momentum of a body—namely, its mass multiplied by its velocity.' "To speak somewhat quaintly," she says, "the mass is just a measure of the quantity of matter in the body.⁶ Since, in all of the experiments we are going to do, it is safe to say that the mass of each body remains unchanged, we need not say more about it. You can see that each car comes with its mass labeled; this one, for instance, has a mass of 200 grams, while this one has a mass of 400 grams. We have a number of different cars with quite a variety of different masses. The velocity," she continues, "is what we ordinarily mean by 'speed' along with the direction of travel. On the air track there are only two possible directions, left to right and right to left. Let us simply agree that motion from left to right has a positive velocity, while motion from right to left has a negative velocity. Mass, of course, is always a positive quantity. Thus, momentum, which is mass times velocity, may be positive, negative, or zero. When we add the momenta of various bodies together, we must always be careful of the sign (plus or minus)."

With these preliminaries, you begin to perform a variety of experiments. She has various types of fancy equipment for measuring velocities, which she shows you how to use, and she also helps you to make measurements. You find that it is fun pushing cars back and forth on the track, crashing them into one another, and measuring their velocities before and after collisions. You try it with a variety of cars of different masses and with differing velocities. You try it with the ones that bounce apart after impact and with those that stick together. You always find that the total momentum (the sum of the momenta for the two cars) before any collision is equal to the total momentum after the collision, even

though the momenta of the individual cars may change markedly as a result of the collision. This, Dr. Sagro explains, is what the law of conservation of momentum demands: when two bodies (such as the cars) interact with one another (as in a collision), the total momentum of the system consisting of those two bodies is the same before and after the interaction.

You ask her whether this law applies only to collisions; she replies immediately that it applies to all kinds of interactions. "Let's see how it works for a simple type of 'explosion,'" she suggests. She helps you tie together two cars, holding a compressed spring between them. You burn the string which holds them together and they fly apart. You measure the velocities and compute the momenta of each of the cars after the "explosion." It turns out that the momentum of the one car is always equal in amount but opposite in direction to that of the other. This is true whether the cars are of equal or unequal masses and whether the tension on the spring that drives them apart is great or small. "This is just what the law of conservation of momentum tells us to expect," she explains; "the momentum of each car is zero before the 'explosion' because they are not moving (each has velocity equal to zero), and so the two momenta after the 'explosion' (one positive and one negative) must add up to zero. That is what has happened every time.

"There are many other applications of the law of conservation of momentum," she continues. "When a rifle recoils upon being fired, when a jet engine propels an airplane, when a rocket engine lifts an artificial satellite into orbit, or when you step out of an untethered rowboat and are surprised to feel it moving out from under you—these are all cases of conservation of momentum."

"Is this law ever violated?" you ask.

"No," she answers, "there are no known exceptions to it." You leave the lab with the feeling that you know at least one fundamental law, and that you have seen it proved experimentally right before your eyes. You can't wait to tell your philosophy professor about it.

When you go to your philosophy class the next morning, the topic is still Hume's Enquiry Concerning Human Understanding and the problem of how we can have knowledge of things we do not observe. As the lecture begins, Professor Philo⁷ is saying, "As we saw during the last lecture, Hume maintains that our knowledge of what we do not observe is based entirely upon cause and effect relations, but that raises the question of how we can gain knowledge of these relations. Hume maintained that this knowledge can result only from repeated observation of one type of event (a cause) to see whether it is always followed by an event of another kind (its effect). Hume therefore analyzed the notion of causality in terms of constant conjunction of events. Consider for a moment Hume's favorite example, the colliding billiard balls..."

You raise your hand. "It seems to me that Hume was wrong about this," you begin, and then you relate briefly yesterday's experiences in the physics lab. "If you know the relevant laws of nature," you conclude, "you can predict the outcomes of future experiments on the basis of a single trial, or perhaps even without benefit of any trials at all."

"But how," asks Professor Philo, "can we establish knowledge of the laws of nature?"

You had a hunch she might ask some such question, and you are ready with your reply, "We proved it experimentally."

"Well," says Professor Philo, "I'm not a physicist, so perhaps you had better explain in a little more detail just what the experimental proof consists of. You mentioned something about an explosion-how did that go?"

You explain carefully how the air track works, how the two cars were joined together with a spring under tension in between, and how they moved apart when the string was burned. "In every case," you conclude, "the momentum of the two cars was equal in amount and opposite in direction, just as the law of conservation of momentum says it should be."

"Now let me see if I understand your line of reasoning," says the professor in a tone that is altogether too calm to suit you. "If the law of conservation of momentum is correct, then the two cars will part in the manner you described. The cars did move apart in just that way. Therefore, the law of conservation of momentum is correct. Is that your argument?"

"I guess so," you reply a bit hesitantly, because it looks as if she is trying to trap you.

"Do you think that kind of argument is valid?" she responds.

"What do you mean?" you ask, beginning to feel a little confused.

"Well," she says, "isn't that rather like the following argument: If this defendant is guilty, he will refuse to testify at his own trial; he does refuse to testify; therefore, he is guilty. Would any judge allow that argument in a court of law?"

"Of course not," you reply, "but it isn't the same thing at all. We tested the law of conservation of momentum many times in many different ways, and in every case we got the expected result (allowing for the usual small inaccuracies in the measurements)."

"If I remember what you said," Ms. Philo goes on, "in one of your experiments you had one car with a mass of 200 grams and another with a mass of 400 grams, and in that case the lighter car recoiled with twice the speed of the more massive one. How many times did you repeat this particular experiment?"

"Once or twice, as nearly as I can recall."

"Yet, you seem to believe that the result would be the same, no matter how many times the experiment was repeated-is that correct?"

"I suppose so," you reply somewhat uncomfortably.

"And with how many different masses and how many different recoil velocities did you try it? Do you believe it would work the same way if the masses were thousands or billions of kilograms instead of a few grams? And do you suppose that it would work the same way if the velocities were very great-somewhere near the speed of light?"

Since you have heard that strange things happen when speeds approach that of light, your hesitancy increases, but you reply tentatively, "Well, the lab instructor told me that there are no exceptions to the law."

"Did she say that," asks Philo, "or did she say no known exceptions?"

"I guess that was it," you reply lamely, feeling quite crushed.

Professor Philo endeavors to summarize the discussion. "What is considered experimental 'proof of a law of nature' is actually a process of testing some of its logical consequences. That is, you ask what would have to happen if your hypothesis is true, and then you perform an experiment to see if it turns out that way in fact. Since any law of nature is a generalization,⁸ it has an unlimited number of consequences. We can never hope to test them all. In particular, any useful law of nature will have consequences that pertain to the future; they

enable us to make predictions. We can never test these consequences until it is too late to use them for the purpose of prediction. To suppose that testing some of the consequences of a law constitutes a conclusive proof of the law would clearly be an outright logical fallacy." The bell rings and you leave the class, convinced that she has merely been quibbling.

During your physics class you brood about the previous discussion in the philosophy class, without paying very close attention to the lecture. Similar thoughts keep nagging at you during lunch. The objections brought up by Professor Philo seem to be well-founded, you conclude, but you wonder how they can be reconciled with the apparent reliability and certainty of scientific knowledge. In desperation, you decide to talk it over with Professor Salvia during his office hour this very afternoon. When you arrive, you don't know exactly where to begin, so you decide to go back to the pendulum demonstration, which was the thing that got you started on this whole mess. "When you performed that demonstration," you ask, "were you absolutely certain how it would turn out? Has it ever failed?"

"Well, to be perfectly honest," he says, "it has been known to fail. Once when a friend of mine was doing it in front of a large auditorium, the suspension in the ceiling broke and the ball landed right on his foot. He was in a cast for months!"

"But that's no fault of the law of conservation of energy is it?" you ask. "The breaking of the suspension didn't mean that conservation of energy is false, did it?"

"Of course not," he answers, "we still believe firmly in conservation of energy."

"But are you certain of the law of conservation of energy, or any other law of nature?" you ask, and before he has a chance to answer, you

tell him about the discussion in the philosophy class this morning.

"So that's what's bothering you," he says, after hearing the whole story. "Professor Philo has an important point. No matter how thoroughly we have tested a scientific law-better, let's say 'hypothesis'-there is always the possibility that new evidence will show up to prove it false. For instance, around the close of the nineteenth century, many physicists seemed virtually certain that Newtonian mechanics was absolutely correct. A wide variety of its consequences had been tested under many different circumstances, and Newton's laws stood up extremely well. But early in the twentieth century it became clear that what we now call 'classical physics' would have to undergo major revisions, and a profound scientific revolution ensued. Modern physics, which includes quantum mechanics and relativity theory, was the result. We can never be sure that any hypothesis we currently accept as correct will not have to be abandoned or modified at some time in the future as a result of new evidence."

"What about the law of conservation of momentum?" you ask, recalling yesterday's experience in the lab. "The lab instructor said it has no known exceptions."

"That is correct," says Salvia, "and it is a rather interesting case. Conservation of momentum is a consequence of Newton's laws of motion; therefore, any consequence of conservation of momentum is a consequence of Newton's laws. But we now regard Newton's laws as not strictly true-they break down, for example, with objects traveling close to the speed of conservation of momentum holds even in these cases. So we have a good example of a case where we believe a lot of consequences, but we do not believe in the laws (Newton's) from which the consequences follow."

It occurs to you that this is a rather important set of supposed laws; perhaps the philosophy professor was not merely quibbling when she said that it was not valid to conclude that a hypothesis is true just because we know many of its consequences to be true.

"Since you cannot be certain of any so-called law of nature," you ask, "why do you

believe in them so firmly?"

"Because," answers Salvia, "we consider them very well confirmed. We accept wellconfirmed hypotheses, knowing that we may later have to change our minds in the light of new evidence. Science can no longer claim infallible truth."

"Does that mean that scientific results are highly probable, but not absolutely certain?" you ask, trying to be sure you have understood what he has said.

"Yes, you could put it that way," he agrees.

You leave with the feeling that you have a pretty good comprehension of the situation. As a result of your study of physics and philosophy you now understand why science cannot claim infallibility for its findings, but must be content with results that are well confirmed. With that, you take off for the weekend. (And what you do with your weekend is your own business.)

HUME'S BOMBSHELL

A little tired, but basically in a cheerful mood, you arrive at your philosophy class on Monday morning. You meet the professor a few minutes before class outside the room, and you tell her very briefly of your conversation with the physics professor. You explain that you now understand why it is that scientific laws can never be considered completely certain, but only as well-confirmed hypotheses. With her help, and with that of Professor Salvia, you now understand what Hume was driving you see, moreover, that Hume was right. She smiles, and you both go into the classroom, where she begins her lecture.

"Last Friday, as you may recall, we had quite a lively discussion about the status of scientific law of conservation of momentum, in particular. We saw that such laws cannot be proved conclusively by any amount of experimental evidence. This is a point with which, I am happy to report, many (if not most) contemporary scientists agree. They realize that the most they can reasonably claim for their hypotheses is strong confirmation. Looking at the matter this way, one could conclude that it is wise to believe in scientific predictions, for if they are not certain to be true, they are a good bet. To believe in scientific results is to bet with the best available odds.

"However," she continues, "while this view may be correct as far as it goes, Hume was making a much more fundamental, and I should add, much more devastating point. Hume was challenging not merely our right to claim that scientific predictions will always be right, but also our right to claim that they will usually, or often, or indeed ever, be correct. Take careful note of what he says in Section IV:

Let the course of things be allowed hitherto ever so regular; that alone, without some new argument or inference, proves not that, for the future, it will continue so. In vain do you pretend to have learned the nature of bodies from your past experience. Their secret nature, and consequently all their effects and influence, may change, without any change in their sensible qualities. This happens sometimes, and with regard to some objects: Why may it not happen always and with regard to all objects? What logic, what process of argument secures you against this supposition?

He is saying, as I hope you understood from your reading, that no matter how reliably a law seems to have held in the past, there is no logical reason why it must do so in the future at all. It is therefore possible that every scientific prediction, based on any law or laws whatever, may turn out to be false from this moment on. The stationary billiard ball that is struck by a moving one may remain motionless where it is-while the moving ball may bounce straight back in the direction from whence it came, or it may go straight up in the air, or it might vanish in a puff of smoke. Any of these possibilities can be imagined; none of them involves any logical

contradiction. This is the force of Hume's skeptical arguments. The conclusion seems to be that we have no reason to believe in scientific predictions-no more reason than to believe on the basis of astrology, crystal gazing, or sheer blind guessing."

You can hardly believe your cars; what is she saying? You raise your hand, and when you are recognized, you can hardly keep your intense irritation from showing as you assert, "But certainly we can say that scientific predictions are more probable than those based, for example, upon astrology." As you speak, you are reminded of the remark in contemporary problems last Wednesday concerning the coming of the Age of Aquarius. Science has got to be better than that! As these thoughts cross your mind Professor Philo is saying, "...but that depends upon what you mean by 'probable,' doesn't it?"

The physics lecture today is on Newton's law of gravitation, and the professor is explaining that every bit of matter in the universe is attracted to every other by a force proportional to the masses and inversely proportional to the square of the distance between them. He goes on to explain how Kepler's laws of planetary motion and Galileo's law of falling bodies are (when suitably corrected) consequences of Newton's laws. You listen carefully, but you recognize this as another law that enables scientists to make impressive predictions. Indeed, Salvia is now telling how Newton's laws were used to explain the tides on the oceans and to predict the existence of two planets, Neptune and Pluto, that had not been known before. At the same time, you are wondering whether there is anything in what Hume seemed to be saying about such laws. Is it possible that suddenly, at the very next moment, matter would cease to have gravitational attraction, so that the whole solar system would go flying apart? It's a pretty chilling thought.

At lunch you are thinking about this question, and you glance back at some of the readings that were assigned from Hume's Enquiry. You notice again Hume's many references to secret powers and forces. Well, gravitation is surely a force, though there has not been any great secret about it since Newton's time. It is the "power" which keeps the solar system together. You remember reading somewhere that, according to Hume, you cannot know that it is safer to leave a building by way of the halls, stairways, and doors than it would be to step out of the third-story window. Well, Newton's law makes it clear why you don't want to step out of the third-story window, but what assurance have you that the building will continue to stand, rather than crashing down around your ears before you can get out? The engineers who design and build towers and bridges have a great deal of knowledge of the "secret powers" of their materials, so they must know a great deal more than Hume did about the hidden properties of things.

At this very moment, a lucky coincidence see 1)r. Sagro, your physics lab instructor, entering the cafeteria. You wave to her, and she sits down with you, putting her coffee cup on the table. You begin to ask her some questions about structural materials, and she responds by inquiring whether you would be satisfied if she could explain how the table supports the cup of coffee. You recognize it as just the kind of question you have in mind, and urge her to proceed.

"Certain materials, such as the metal in this table," she begins, "have a rather rigid crystalline structure, and for this reason they stick together and maintain their shape unless subjected to large forces. These crystals consist of very regular (and very beautiful) arrays of atoms, and they are held together by forces, essentially electrostatic in origin, among the charged particles that make up the atoms. Have you studied Coulomb's law of electrostatic forces?"

"No," you reply, "we are just doing Newton's law of gravitation. I think Salvia said electricity and magnetism would come up next semester."

"Well," she says, "these electrostatic forces are a lot like gravitational forces (they vary

inversely with the square of the distance), but there are a couple of very important differences. First, as you know, there are two types of charges, positive and negative. The proton in the nucleus of the atom carries a positive charge, and the electrons that circulate about the nuclei have a negative charge. Two particles with opposite signs (such as a proton and an electron) attract one another, while two particles with like signs (e.g., two electrons or two protons) repel each other. This is different from gravity, because all matter attracts all other matter; there is no such thing as gravitational repulsion. The second main difference is that the electrostatic force is fantastically stronger than the gravitational force-roughly a billion billion billion billion times more powerful-but we don't usually notice it because most objects we deal with in everyday life are electrically neutral, containing equal amounts of positive and negative electric charge, or very nearly so. If you could somehow strip all of the electrons away from an apple, and all of the protons away from the earth, the force of attraction between the apple and the earth would be unbelievable.

"It is these extremely strong attractive and repulsive forces among the electrons and protons in the metal that maintain a stable and rigid form. That's why the table doesn't collapse. And the reason the coffee cup stays on top of the table, without penetrating its surface or slipping through, is that the electrons in the surface of the cup strongly repel those in the surface of the table. Actually, there is also a quantum mechanical force that prevents the weight of the cup from noticeably compressing the table, but we needn't go into that, because the effect is mostly due to the electrostatic forces."

Pleased with this very clear explanation, you thank her, but follow it up with another question. "Is there any logical reason why it has to be that opposite charges attract and like charges repel? Can you prove that it is impossible for like charges to attract and unlike charges to repel? What would happen if that were suddenly to become the law?"

"It would certainly result in utter catastrophe," she replies, "with all of the atomic nuclei bunching up together in one place and all of the electrons rushing away from them to congregate elsewhere. But to answer your question, no, there is no logical proof that it couldn't be that way. In our physical world we find that there are, in fact, two types of charges, and they obey the Coulomb law rather than the one you just formulated."

"Can you prove that the world will not switch from the one law to the other, say, tomorrow?" you ask.

"No, frankly, I can't," she answers, "but I, and all other physicists assume-call it an article of faith if you like-that it won't happen."

There's that word "faith" again, you muse as you leave the cafeteria.

The more you think about it, the more clearly you see that the physicists have not shown you how to get around the basic problem Hume raised; rather, they have really reinforced it. Maybe this problem is tougher than I thought, you say to yourself, and you head for Professor Philo's office to talk further about it. "I was

thinking about all these 'secret powers' Hume talks about," you begin, "and so I asked my physics instructor about them. She explained, as an example, how a table supports a coffee cup, but she did it on the basis of laws of nature-Coulomb's law of electrostatics was one of them. This law is very well confirmed, I suppose, but she admitted that it is quite possible to imagine that this law would fail tomorrow, and-if you'll pardon the expression-all hell would break loose. Now, my question is, how can we find out about these secret powers that Hume keeps saying we need to know? How can we discover the real underlying causes of what happens?"

"I think you are really beginning to get the point Hume was driving at," she replies,

"namely, that there is no way, even in principle, of finding any hidden causes or secret powers. You can, of course, find regularities in nature-such as conservation of energy, conservation of momentum, universal gravitation, and electrostatic attraction and these can only be known to have held up to the present. There is no further kind of hidden connection or causal relation that can be discovered by more careful observation, or examination with some kind of super-microscope. Of course, we do discover regularities, and we explain them. For instance, Kepler's laws of planetary motion are regularities that are explained by Newton's laws of motion and gravitation, but these do not reveal any secret powers. They simply provide more general regularities to cover the more restricted ones.

"In his discussion of 'the idea of necessary connection,' Hume tries to bring out precisely this point. We can observe, as you were saying in class the other day, that recoil experiments always yield a particular type of result-namely, momentum is conserved. We have observed this many times. And now we expect, on future trials, that the same thing will happen. But we do not observe, nor can we discover in any way, an additional factor which constitutes a necessary connection between the 'explosion' and the subsequent motion of the cars. This seems to be what Hume had in mind when he wrote:

These ultimate springs and principles are totally shut up from human curiosity and enquiry. Elasticity, gravity, cohesion of parts, communication of motion by impulse; these are probably the ultimate causes and principles which we ever discover in nature; and we may esteem ourselves sufficiently happy, if, by accurate inquiry and reasoning, we can trace up the particular phenomena to, or near to, these general principles.⁹

Hume is acknowledging that we can discover general regularities in nature, but he is denying that an additional 'connection' can be found. And Hume was dedicated to the maxim, as are modern scientists, that we have no business talking about things it is impossible in principle for us to know anything about.

"When he asks why we do, in fact, expect so confidently that the future experiments will have outcomes similar to those of the past trials, Hume finds that it is nothing other than a matter of psychological conditioning. When we see one type of cause repeatedly followed by a particular type of effect, we come to expect that the same type of effect will follow the next time we come across that kind of cause. But this is not a matter of logical reasoning. Have you heard of Pavlov's conditioning experiments with dogs?" You nod. "When the bell rings the dog starts to salivate. He is not reasoning that, since the sounding of the bell has, in the past, been associated with the bringing of food, therefore, on this occasion the food will (at least probably) appear soon after the bell rings. According to Hume's analysis, what is called 'scientific reasoning' is no more rational or logical than your watering at the mouth when you are hungry and hear the dinner bell. It is something you cannot help doing, Hume says, but that does not mean that it has any logical foundation."

"That brings up a question I've wanted to ask," you say. "Hume seems to think that people necessarily reason in that way-inductive reasoning, I think it is called-but I've noticed that lots of people don't seem to. For instance, many people (including a student in my current problems course) believe in things like astrology; they believe that the configuration of the planets has a bearing on human events, when experience shows that it often doesn't work that way." The professor nods in agreement. You continue, "So

if there is no logical justification for believing in scientific predictions, why isn't it just as reasonable to believe in astrological predictions?"

"That," replies the prof, "is a very profound and difficult question. I doubt that any

philosopher has a completely satisfactory answer to it."

MODERN ANSWERS¹⁰

The Wednesday philosophy lecture begins with a sort of rhetorical question, "What reason do we have (Hume is, at bottom, asking) for trusting the scientific method; what grounds do we have for believing that scientific predictions are reliable?" You have been pondering that very question quite a bit in the last couple of days, and rhetorical or not-your hand shoots up. You have a thing or two to say on the subject.

"Philosophers may have trouble answering such questions," you assert, "but it seems to me there is an obvious reply. As my physics professor has often said, the scientist takes a very practical attitude. He puts forth a hypothesis; if it works he believes in it, and he continues to believe in it as long as it works. If it starts giving him bad predictions, he starts looking for another hypothesis, or for a way of revising his old one. Now the important thing about the scientific method, it seems to me, is that it works. Not only has it led to a vast amount of knowledge about the physical world, but it has been applied in all sorts of practical ways-and although these applications may not have been uniformly beneficial-for better or worse they were successful. Not always, of course, but by and large. Astrology, crystal gazing, and other such superstitious methods simply do not work very well. That's good enough for

"That is, indeed, a very tempting answer," Professor Philo replies, "and in one form or another, it has been advanced by several modern philosophers. But Hume actually answered that one himself. You might put it this way. We can all agree that science has, up till now, a very impressive record of success in predicting the future. The question we are asking, however, is this: should we predict that science will continue to have the kind of success it has had in the past? It is quite natural to assume that its record will continue, but this is just a case of applying the scientific method to itself. In studying conservation of momentum, you inferred that future experiments would have results similar to those of your past experiments; in appraising the scientific method, you are assuming that its future success will match its past success. But using the scientific method to judge the scientific method is circular reasoning. It is as if a man goes to a bank to cash a check. When the teller refuses, on the grounds that he does not know this man, the man replies, 'That is no problem; permit me to introduce myself-I am John Smith, just as it says on the check.'

"Suppose that I were a believer in crystal gazing. You tell me that your method is better than mine because it has been more successful than mine. You say that this is a good reason for preferring your method to mine, I object. Since you are using your method to judge my method (as well as your method), I demand the right to use my method to evaluate yours. I gaze into my crystal ball and announce the result: from now on crystal gazing will be very successful in predicting the future, while the scientific method is due for a long run of bad luck."

You are about to protest, but she continues.

"The trouble with circular arguments is that they can be used to prove anything; if you assume what you are trying to prove, then there isn't much difficulty in proving it. You find the scientific justification of the scientific method convincing because you already trust the scientific method; if you had equal trust in crystal gazing, I should think you would find the crystal gazer's justification of his method equally convincing. Hume puts it this way:

When a man says, I have found, in all past instances, such sensible qualities conjoined with such secret powers: And when he says, Similar sensible qualities will always be conjoined with similar secret powers, he is not guilty of a tautology, nor are these propositions in any respect the same. You can say that the one proposition is an inference from the other. But you

must confess that the inference is not intuitive; neither is it demonstrative: Of what nature is it, then? To say it is experimental is begging the question. For all inferences from experience suppose, as their foundation,

that the future will resemble the past, and that similar powers will be conjoined with similar sensible qualities.¹²

If the assumption that the future is like the past is the presupposition of the scientific method, we cannot assume that principle in order to justify the scientific method. Once more, we can hardly find a clearer statement than Hume's:

We have said that all arguments concerning existence are founded on the relation of cause and effect; that our knowledge of that relation is derived entirely from experience; and that all our experimental conclusions proceed upon the supposition that the future will be conformable to the past. To endeavour, therefore, the proof of this last supposition by probable arguments, or arguments regarding existence, must evidently be going in a circle, and taking that for granted, which is the very point in question."

"The principle that the future will be like the past, or that regularities which have held up to the present will persist in the future, has traditionally been called the principle of uniformity of nature. Some philosophers, most notably Immanuel Kant, have regarded it as an a priori truth. ¹⁴ It seems to me, however, that Hume had already provided a convincing refutation of that claim by arguing that irregularities, however startling to common sense, are by no means inconceivable—that is, they cannot be ruled out a priori. Recall what he said:

... it implies no contradiction that the course of nature may change, and that an object, seemingly like those which we have experienced, may be attended with different or contrary effects. May I not clearly and distinctly conceive that a body, falling from the clouds, and which, in all other respects, resembles snow, has yet the taste of salt or feeling of fire? ... Now whatever is intelligible, and can be distinctly conceived, implies no contradiction, and can never be proved false by any demonstrative argument or abstract reasoning a

"Other philosophers have proposed assuming this principle (or something similar) as a postulate; Bertrand Russell, though not the only one to advocate this approach, is by far the most famous.¹⁶ But most philosophers agree that this use of postulation is question-begging. The real question still remains: why should one adopt any such postulate? Russell himself, in another context, summed it up very well: The method of 'postulating' what we want has many advantages; they are the same as the advantages of theft over honest toil." ¹⁷

"Nevertheless," you interject, "can't we still say that scientific predictions are more probable than, say, those of astrology or crystal gazing?"

"It seems to me you raised a similar question once before," Professor Philo replies, "and I seem to recall saying that it depends on what you mean by the term 'probable.' Maybe it would be helpful if I now explain what I meant." ¹⁸ You nod encouragement. "The concept of probability—or perhaps I should say 'concepts' of probability—are very tricky. If you were to undertake a systematic study of confirmation and induction, you would have to go into a rather technical treatment of probability, but perhaps I can give a brief hint of what is involved.¹⁹ One thing that has traditionally been meant by this term relates directly to the frequency with which something occurs—as Aristotle put it, the probable is that which happens often. If the weather forecaster says that there is a 90% chance of rain, he presumably means that, given such weather conditions as are now present, rain occurs in nine out of ten cases. If these forecasts are correct, we can predict rain on such occasions and be right nine times out of ten.

"Now, if you mean that scientific predictions are probable in this sense, I do not see how

you could possibly support your claim. For Hume has argued-cogently, I think-that, for all we know now, every future scientific prediction may go wrong. He was not merely saying that science is fallible, that it will sometimes err in its predictions-he was saying that nature might at any moment (for all we can know) become irregular on such a wide scale that any kind of scientific prediction of future occurrences would be utterly impossible. We have not found any reason to believe he was mistaken about this point."

"That must not be the concept of probability I had in mind," you remark; "I'm not quite sure how to express it, but it had something to do with what it would be reasonable to believe. I was thinking of the fact that, although we cannot regard scientific hypotheses as certain, we can consider them well confirmed. It is something like saying that a particular suspect is probably guilty of a crime-that the evidence, taken as a whole, seems to point to him."

"You have put your finger on another important probability concept," the professor replies. "It is sometimes known as the rational credibility concept. The most popular contemporary attempt (I believe) to deal with Hume's problem of inductive reasoning is stated in terms of this concept. The argument can be summarized in the following way. Hume has proved that we cannot know for sure that our scientific predictions will be correct, but that would be an unreasonable demand to place upon science. The best we can hope is for scientific conclusions that are probable. But when we ask that they be probable, in this sense, we are only asking that they be based upon the best possible evidence. Now, that is just what scientific predictions are-they are predictions based upon the best possible evidence. The scientist has fashioned his hypotheses in the light of all available information, and he has tested them experimentally on many occasions under a wide variety of circumstances. He has summoned all of the available evidence, and he has brought it to bear on the problem at hand. Such scientific predictions are obviously probable (as we are now construing this term); hence, they are rationally credible.²⁰ If we say that a belief is irrational, we mean that it runs counter to the evidence, or the person who holds it is ignoring the evidence. And in such contexts, when we speak of evidence, we are referring to inductive or scientific evidence.

"Now, the argument continues, to ask whether it is reasonable to believe in scientific conclusions comes right down to asking whether one ought to fashion his beliefs on the basis of the available evidence. But this is what it means to be rational. Hence, the question amounts to asking whether it is rational to be rational. If the question makes any sense at all, the obvious answer is 'yes.' "

"That answer certainly satisfies me," you say, feeling that Dr. Philo has succeeded admirably in stating the point you were groping for. "I'm glad to know that lots of other philosophers agree with it. Do you think it is a satisfactory answer to Hume's problem of induction?" You are more than a trifle discouraged when she gives a negative response with a shake of her head. "Why not?" you demand.

"This argument seems to me to beg the question," she replies, "for it assumes that the concept of evidence is completely clear. But that is precisely the question at issue. If we could be confident that the kind of experiments you performed in the physics lab to test the law of conservation of momentum do, in fact, provide evidence for that law, then we could say that the law is well supported by evidence. But to suppose that such facts do constitute evidence amounts to saying that what has happened in the past is a sign of what will happen in the fact that momentum was conserved in your 'explosion' experiments is an indication that momentum will be conserved in future experiments of a similar nature. This assumes that the future will be like the past, and that is precisely the point at issue. To say that one fact constitutes evidence for

another means, in part, that the one provides some basis for inference to the occurrence of the other. The problem of induction is nothing other than the problem of determining the circumstances under which such inference is justified. Thus, we have to resolve the problem of induction-Hume's problem-before we can ascertain whether one fact constitutes evidence for another. We cannot use the concept of evidence-inductive evidenceto solve the problem of induction.

"There is another way to look at this same argument. If you ask me whether you should use the scientific method, I must find out what you hope to accomplish. If you say that you want to get a job teaching physics, I can tell you right away that you had better use the scientific method, at least in your work, because that is what is expected of a physicist. If you say that you want to enjoy the respect and prestige that accrues to scientists in certain social circles, the answer is essentially the same. If you tell me, however, that you want to have as much success as possible in predicting future events, the answer is by no means as easy. If I tell you to go ahead and make scientific predictions, because that is what is considered reasonable (that is what is meant by fashioning your beliefs on the basis of evidence), then you should ask whether being reasonable in this sense (which is obviously the commonly accepted sense) is a good way to attain your goal. The answer, 'but that's what it means to be reasonable,' is beside the point. You might say, 'I want a method that is reasonable to adopt in order to achieve my goal of successful prediction-that is what I mean by being reasonable. To tell me that the scientific method is what is usually called reasonable doesn't help. I want to know whether the method that is commonly called reasonable is actually a reasonable method to adopt to attain my goal of successful prediction of the future. The fact that it is usually considered reasonable cuts no ice, because an awareness of Hume's problem of induction has not filtered down into common usage.' That's what I think you should say."

"Couldn't we avoid all of these problems," suggests another student, "if we simply resisted the temptation to generalize? In social science, my area of interest, we find that it is very risky to generalize, say, from one society to another. An opinion survey on students in the far west, for example, will not be valid when applied to students attending eastern schools. Wouldn't we be better off to restrict our claims to the facts we know, instead of trying to extend them inductively to things we really don't know?"

"The opinion you have offered bears a strong resemblance (though it isn't identical) to that of an influential British philosopher.²¹ He has presented his ideas persuasively, and has many followers. Hume, he says, has proved conclusively that induction is not a justifiable form of inference; it is, consequently, no part of science. The only kind of logic that has a legitimate place in science is deductive logic. Deductive inferences are demonstrative; their conclusions must be true if their premises are true. These inferences are precisely what Hume called 'reasoning concerning relations of ideas.' The crucial point is that they do not add to our knowledge in any way-they enable us to see the content of our premises, but they do not extend that content in the least. Thus, from premises that refer only to events in the past and present, it is impossible to deduce any predictions of future facts. Any kind of inference which would enable us to predict the future on the basis of facts already observed would have to be of a different sort; such inference is often called 'ampliative' or 'inductive.' If science contains only deductive inferences, but no inductive inferences, it can never provide us with any knowledge beyond the content of our immediate observations.

"Now this philosopher does not reject scientific knowledge; he simply claims that prediction of the future is no part of the business of science. Accordingly, the function of

scientific investigation is to find powerful general hypotheses (he calls them conjectures) that adequately explain all known facts that have occurred so far. As long as such a generalization succeeds in explaining the new facts that come along it is retained; if it fails to explain new facts, it must be modified or rejected. The sole purpose of scientific experimentation is to try to find weaknesses in such hypotheses—that is to criticize them or try to refute them. He calls this the 'method of conjectures and refutations,' or sometimes simply, 'the critical approach.'

"The main difficulty with this insuperable one, in my the fact that it completely deprives science of its predictive function. To the question of which method to use for predicting the future, it can give no answer. Astrology, crystal gazing, blind guessing, and scientific prediction are all on a par. To find out what the population of the world will be in 2000 A.D., we might as well employ a psychic seer as a scientific demographer. I find it hard to believe that this can constitute a satisfactory solution to the problem of employing our knowledge to find rational solutions to the problems that face us problems whose solutions demand that we make predictions of the future course of events. Tempting as it is to try to evade Hume's problem in this way, I do not see how we can be satisfied to admit that there is no rational approach to our problem."

"But perhaps there is no answer to Hume's problem," says still another student; "maybe the only hope for salvation of this world is to

give up our blind worship of science and return to religion. We have placed our faith in science, and look where we are as a result. I believe we should adopt a different faith."

There's that word again, you note to yourself, as the professor begins her answer: "Though I heartily agree that many of the results of science-technological results, I think we should emphasize have been far from beneficial, I don't think we can properly condemn scientific knowledge. Knowledge is one thing; what we choose to do with it is quite another. But that's not the issue we are concerned with. I do not see how anyone could deny that science has had a great deal of success in making predictions; no other approach can possibly present a comparable record of success. And, as time goes on, the capability for predictive success seems only to increase. It would be an utterly astonishing piece of luck, if it were sheer coincidence, that science has been so much luckier than other approaches in making its predictions. If anyone can consistently pick a winner in every race at every track every day, we are pretty sure he has more than good luck going for him. Science isn't infallible, but it is hard to believe its predictive success is just a matter of chance. I, at least, am not prepared to say that science is just one among many equally acceptable faiths you pays your money and you takes your choice. I feel rather sure that the scientific approach has a logical justification of some sort." With that, the bell rings, the discussion ends, and everyone leaves none by way of the window.

It just isn't good enough, you say to yourself, after listening to your physics professor lecturing, with demonstrations, on the law of conservation of angular momentum. You don't know whether you're dizzier from the discussion of Hume's problem in the philosophy class or from watching student volunteers in this class being spun on stools mounted on turntables. In any case, you decide to look up Professor Philo after lunch, and you find her in her office.

"Look," you say a bit brusquely, "I see that Hume was right about our inability to prove that nature is uniform. But suppose that nature does play a trick on us, so to speak. Suppose that after all this time of appearing quite uniform, manifesting all sorts of regularities such as the laws of physics, she turns chaotic. Then there isn't anything we can do anyhow. Someone might make a lucky guess about some future event, but there would be no systematic method for anticipating the chaos successfully. It seems to me I've got a way of predicting the future which will work if

nature is uniform-the scientific method, or if you like, the inductive method-and if nature isn't uniform, I'm out of luck whatever I do. It seems to me I've got everything to gain and nothing to lose (except a lot of hard work) if I attempt to adhere to the scientific approach. That seems good enough to me; what do you think?"²²

"Well," she says quietly, "I tend to agree with that answer, and so do a few others, but we are certainly in the minority. And many difficult problems arise when you try to work it out with precision."

"What sorts of difficulties are these?" you ask.

"There are several kinds," she begins; "for instance, what exactly do you mean by saying that nature is uniform? You cannot mean-to use Hume's quaint language-that like sensible qualities are always conjoined with like secret powers. All of us, including Hume, know this claim is false. Bread which looks and tastes completely harmless may contain a deadly poison. A gas which has exactly the appearance of normal air may suffocate living organisms and pollute the atmosphere. That kind of uniformity principle cannot be the basis of our inferences."

"That's quite true," you answer, "but perhaps we could say that nature operates according to regular laws. Ever since I began to think about Hume's problem, I have been led back to laws of nature."

"Your suggestion is a good one," she replies, "but modern philosophers have found it surprisingly difficult to say precisely what type of statement can qualify as a possible law of nature. It is a law of nature, most physicists would agree, that no material objects travel faster than light; they would refuse to admit, as a law of nature, that no golden spheres are more than one mile in diameter. It is not easy to state clearly the basis for this distinction. Both statements are generalizations, and both are true to the best of our knowledge."²³

"Isn't the difference simply that you cannot, even in principle, accelerate a material object to the speed of light, while it is possible in principle to fabricate an enormous sphere of gold?"

"That is precisely the question at issue," she replies. "The problem is, what basis do we have for claiming possibility in the one case and impossibility in the other. You seem to be saying that a law of nature prevents the one but not the other, which is obviously circular. And if you bring in the notion of causation-causing something to go faster than light vs. causing a large golden sphere to be created-you only compound the difficulty, for the concept of causation is itself a source of great perplexity."

"Suppose, however, that we had succeeded in overcoming that obstacle-that we could say with reasonable precision which sorts of statements are candidates for the status of laws of nature and which are not. We then face a further difficulty. It is obvious that some tests of scientific laws carry greater weight than others. The discovery of the planet Neptune, for example, confirmed Newton's laws much more dramatically than would a few additional observations of Mars. A test with particles traveling at very high velocities would be much stronger evidence for conservation of momentum than would some more experiments on the air track in the physics lab. It is not easy to see how to measure or compare the weight which different types of evidence lend to different scientific hypotheses."

"Scientific confirmation is a subtle and complex matter to which contemporary philosophers have devoted a great deal of attention; some have tried to construct systems of inductive logic that would capture this kind of scientific reasoning. Such efforts have, at best, met with limited success; inductive logic is in a primitive state compared with deductive logic. Until we have a reasonably clear idea of what such inference consists of, however, it is unlikely that we will be able to go very far in meeting the fundamental challenge Hume issued concerning

the justification of scientific reasoning. Unless we can at least say what inductive inference is, and what constitutes uniformity of nature (or natural law), we can hardly argue that inductive reasoning-and only inductive reasoning-will prove successful in predicting the future if nature is uniform. And even if those concepts were clarified, the argument would still be intricate indeed."

"Do you think there is any chance that answers to such problems can be found?" you ask.

"I think it's just possible."

"Thanks," you say as you get up to leave.

"And my thanks to you," she replies. "You cannot possibly know how satisfying it is to talk with someone like you someone intelligent who takes such philosophical problems seriously and thinks hard about them. If you keep it up, you might be the very person to find some of the answers. I wish you well."

NOTES

1. Professor Salvia is a descendant of Salviati, the protagonist in Galileo's dialogues. The name was shortened when the family emigrated to America.

2. Dr. Sagro is married to a descendant of Sagredo, another character in Galileo's dialogues.

3. If you really did know, please accept the author's apologies.

4. Please note that "demonstrate" is ambiguous. In mathematics it means "prove"; in physics it means "exemplify." Hume uses this term only in the mathematical sense.

5. Hume, using the terminology of his day, refers to it as the "moment" of the moving body.

6. This is Newton's definition; it is somewhat out of date, but adequate in the present context.

7. She is a direct descendant of Philo, the protagonist in Hume's "Dialogues Concerning Natural Religion," most of which is reprinted in this anthology.

8. Professor Philo realizes that it would be more accurate to say that a statement or hypothesis expressing a law of nature must be a generalization, but she does not wish to introduce unnecessary terminological distinctions at this point.

9. In section IV, part I, anticipating the results of the later discussion.

10. All of the attempts to deal with Hume's problem which are treated in this section are discussed in

detail in Wesley C. Salmon, *The Foundations of Scientific Inference* (Pittsburgh: University of Pittsburgh Press, 1967); this book will be cited hereafter as *Foundations*.

11. This is an inductive justification; see *Foundations*, chapter II, section I.

12. David Hume, *Enquiry Concerning Human Understanding* (hereafter, *Enquiry*), section IV, part II.

13. *Ibid.*

14. For discussion of justification by means of synthetic a priori principles, see *Foundations*, chapter II, section 4.

15. *Enquiry*, section IV, part II.

16. For discussion of the postulational approach, see *Foundations*, chapter II, section 6.

17. Bertrand Russell, *Introduction to Mathematical Philosophy* (London: Allen & Unwin, 1919), p. 71.

18. The "probabilistic approach" is discussed in *Foundations*, chapter II, section 7.

19. An elementary survey of philosophical problems of probability is given in

Foundations, chapters IV-VII. References to additional literature on this subject can be found there.

20. We are assuming, of course, that these predictions are properly made. Scientists are only human, and they do make mistakes. One should not conclude, however, that every false prediction represents a scientific error. Impeccable scientific procedure is fallible, as we have already noted more than once.

21. This refers to the "deductivist" position of Sir Karl Popper. This approach is discussed in Foundations, chapter II, section 3.

22. This approach is due mainly to Hans Reichenbach; it is known as a "pragmatic justification" and is discussed in Foundations, chapter II, section 8.

23. Further elementary discussion of this issue can be found in Carl G. Hempel, *Philosophy of Natural Science* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1966), § 5.3. A more technical and extensive treatment of related issues can be found in Nelson Goodman, *Fact, Fiction, and Forecast*, 2nd ed. (Indianapolis, Ind.: The Bobbs-Merrill Co., 1965).

PART THREE

Mind and Its Place in Nature

TO A LARGE DEGREE, WHAT has come to be known as the "mind-body problem" in philosophy is a product of the philosophy of Rene Descartes. How can things differing as radically as minds (or souls) and bodies, in Descartes' conception, be so intimately related, as they clearly are, in every human person? Bodies are solid chunks of material stuff, extended in three-dimensional space, publicly observable and measurable, possessed of a certain mass and velocity, and capable of causing things to happen, in accordance with the invariant laws of mechanics, by transmitting their impact in "collisions" with other material things. A mind, on the other hand, is directly "observable" only by the person who owns it; only he can think his thoughts, feel his emotions, suffer his pains. Although, under certain circumstances, someone else can cut open his skull and see and touch his living brain, there is no conceivable way for another to see or touch his mind or its beliefs, sensations, and desires. Minds, moreover, have no size or shape or spatial location, no mass, or velocity, or capacity to make impact.

Nevertheless, to common sense, it seems certain that minds and bodies do causally interact. When I intend, or wish, or desire (mental events) to raise my arm, up it goes (bodily event); and when a sliver of wood penetrates my flesh (bodily event), I feel pain (mental event).

It would surely seem, then, that in normal cases of action, mental events cause physical ones and that, in sensation and perception, physical events cause mental ones. Yet how can this be? How can the mind, a massless, weightless, unextended thing, push up against a nerve cell and cause an impulse to be transmitted along a nerve to a muscle? And how can physical stimuli such as wood slivers or even light rays penetrate a thing that has no size or location, and cause it to have an experience? Isn't this as inconceivable as a collision between a physical object and a ghost? This is the kind of difficulty cited by many of Descartes' own contemporaries in criticism of his philosophy.'

Many important seventeenth-century philosophers, no matter how impressed in other ways by the "Cartesian philosophy" (as the philosophy of Descartes came to be called), found Descartes' theory of interaction between mind and body unacceptable. Some, therefore, came to abandon the part of Descartes' philosophy that generated the difficulty: his dualism, or theory that mind and matter are distinct and independent kinds of substances, each capable of existing quite independently of the other.² One alternative was idealism: the theory that the body itself is nothing but a collection of actual or possible sense-data-sights, sounds, touches, and smells. George Berkeley thought this way. According to this theory, there are only minds and their mental "contents"; hence, there are no problems of causal interaction between radically different kinds of substances. Yet another alternative was materialism the theory that mind is reducible to matter.³ Still other philosophers maintained a kind of dualism but abandoned the commonsense view that mind and body really do interact causally. Some held, for example, that the wood sliver's penetration of my flesh does not cause me pain; rather, it is the occasion for God, whose infinite nature somehow encompasses both mind and matter, to cause me to feel pain, and similarly that my desire to raise my arm is simply the occasion for God's causing my arm to go up. This is the theory called occasionalism. Others held the view called parallelism, according to which mind and body only appear to interact because of a kind of "preestablished harmony" between their life histories. Gottfried Leibniz likened this parallelism to two clocks that strike at the same moment, having been wound up together and each designed to keep accurate time, in causal independence of each other.

We have included two defenses of Cartesian dualism in this volume. The locus classicus-Descartes' Meditations-appears in its entirety in Part 2. We choose to open this Part of the book with Brie Gertler's contemporary defense of the Cartesian position. Her master argument is quite straightforward: we can properly conceive of having a mental state (a belief, a conjecture, an experience of pain) while being disembodied; if we can properly conceive of having disembodied mental states, then it is possible that such states are disembodied; if it is possible that they are disembodied, then mental states are not identical with physical states. So mental states are not identical to physical states. Therefore dualism is true.

If dualism is true, then, as we have seen, it is difficult to understand how mental states can cause physical outcomes. This is the worry known as epiphenomenalism, which holds that mind is not itself a material thing; rather, it is a distinct but causally impotent by-product (an "epiphenomenon") of the world charted by physics. Gertler admits that this is something of a worry, but holds that the problems that beset her opponents are graver still.

In his selection here, Frank Jackson offers a powerful defense of epiphenomenalism. Along the way, he presents perhaps the greatest difficulty facing any physicalist (i.e., materialist): "the qualia problem." Qualia are the peculiarly subjective, felt qualities of experience, such as the smell of a hard-boiled egg, the taste of horseradish, or the fiery image of a sunset. Jackson presents a much-discussed argument designed to show that no amount of

knowledge about how the brain works can give us knowledge of what it is to feel such things. Therefore, according to Jackson, these sorts of mental experiences cannot be physical ones. Jackson concludes that physicalism must be false.

One genuinely materialistic alternative to dualism and epiphenomenalism is the identity theory, which holds that mental events (the occurrence of aches and pains, sensations, after-images, desires, and thoughts) are simply identical with brain processes-"identical" in the same way that lightning flashes are "identical" with electrical discharges. Here the identity in question is intertheoretic reduction. In these cases, we reduce items in our commonsense theory of the world to items in a mature physics or neuroscience.

There are many people who don't believe that such reductions are possible. Part of this is because they fail to see any good argument for such reductions. And another is their attachment to arguments that support dualist views. Both of these motivations are questioned in the readings from our representative materialist, Peter Carruthers.

The bulk of Carruthers' piece is intended to show why dualist arguments are not as strong as they may appear. Carruthers begins his piece, however, with a brief argument in favor of the materialist theory. This argument is a version of what has become the most powerful case for materialism. In a nutshell, the argument claims that all that exists in this world can be adequately explained by citing physical causes. But if that is so, then there is no reason to postulate the existence of anything that is nonphysical. So either the mind does not exist, or it does, but is a physical thing.

While Carruthers, like almost everyone else, is perfectly willing to assume the existence of minds and mental events, another, more radical form of physicalism-eliminative materialism-is unwilling to make such a concession. On this view, championed by Paul Churchland in our selections, mental states and processes as we ordinarily conceive of them really have a status like that of witches and phlogiston and must simply be eliminated from our theorizing about ourselves. On the other side, however, many cognitive scientists believe that some sense will have to be made of our ordinary notions of mind. The development of computer technology in recent years has spurred the development of functional approaches to the mind. According to functionalist theories, the identity theory (also called type physicalism) is problematic because it holds that the mental and intellectual properties of a "system" (e.g., a person) depend on the specific physical (brain) properties of that system, whereas apparently many quite different physical systems (e.g., those that are constructed to process information) can perform the same intelligent tasks.

As the Churchland selection makes clear, functionalism sees itself as reconciling the best features of both physicalism and behaviorism, without succumbing to the deficiencies of either. Functionalism, like behaviorism, defines mental states relationally (in terms of input, output, and internal transitions), so there is no commitment to any specific type of matter. But unlike behaviorism, functionalism claims that all actual mental state tokens (instances) are identical to physical state tokens (instances), so functionalism, unlike behaviorism and dualism, can explain mental causation as a species of ordinary physical causation.

Many issues central to the mind-body problem are pursued in the next section, Can Non-Humans Think? We begin this section with Alan Turing's classic paper on the subject-a paper, written midway through the last century, that was far ahead of its time, and which supplied the basis of many of the arguments nowadays offered on the subject. Next comes John Searle's provocative paper "Minds, Brains, and Programs," which challenges the adequacy of a certain form of functionalism, the sort exemplified by current attempts to program computers to

perform "intelligent" tasks. Searle contends that in order to have "intelligent" mental states, it is not enough that we suppose that the system simply is running the right program, because these mental states are not the kinds that can be programmed into a machine. Searle then considers a wide variety of possible objections to his view and attempts to refine each.

As far back as the seventeenth century, at least, philosophers have been fascinated by apparent similarities between human (rational) beings and machines. Excited by discoveries in medicine and physiology, some eighteenth-century philosophers asked whether humans might really be nothing but machines themselves. In our own day most of the excitement comes from those scientists who work on the machine side, not so much from new discoveries in human biology, though the latter have been accumulating at a great rate, too. This new emphasis is reflected in the way the philosophical interest is expressed. Now we do not ask whether, in principle, machines could be designed that are a kind of human, that is to say, intelligent conscious beings like us. Many philosophers would answer unhesitatingly "No, of course not. Computers are made of wires and springs, silicon chips, and the like, not protoplasm (flesh and blood) like us." To that kind of remark William Lycan has a ready reply: "What matters to mentality is not the stuff of which one is made, but the complex way in which that stuff is organized."

Perplexity about whether non-human beings could have human-like consciousness that enables them to be aware of the world and not mere reflexive reactors to stimuli, whether they can think, and if so, whether that thinking amounts to reasoning, extends also to animals like horses, cows, dogs, cats, and whales. Peter Carruthers and John Searle make repeat appearances here, taking opposite sides on these issues. Carruthers defends the view that animals lack any conscious experience at all. They have no thoughts, no beliefs, no inner life. If they have pains, for instance, then they are not conscious pains, and since that is so, they have no moral claims on us at all. Searle, by contrast, defends the view that many animals are indeed conscious, have thoughts, can feel pain, etc. Searle thinks that such claims are patently clear, but that philosophical errors have prevented some thinkers from accepting the obvious. He seeks to diagnose many of the most influential of these, in his defense of animal minds.

The concluding articles in Part 3 relate the discussion back to one of Descartes' original concerns: whether "in death there is an end of me." This question, of course, presupposes the questions preceding it about the nature of the subject of consciousness. If body and mind are one and the same thing, or if mind is a mere epiphenomenon or byproduct of body, then it would follow that the disintegration of mind (soul, self) would proceed at the same pace with the disintegration of the body. But if our minds are distinct substances and causally efficacious in their own right, then it is at least possible that they (we) can survive the death of their (our) bodies. If we are to make philosophical progress in our discussions of the possibility of survival, however, we need to move beyond common understanding of the nature of mind and examination of the empirical evidence (if any). In addition, we must become clear about a set of prior questions that are not normally treated in works on the mind-body problem—namely, questions about personal identity. Who or what am I, this entity whose possible survival of death is under discussion? Am I simply this body and nothing more? What then of my belief that this body "belongs" to me, that the owner is one thing and the body another? Am I simply my mind? Am I a self that somehow encompasses both body and mind? Could I be the same self that I am now if I had none of my present memories, or if I suddenly discovered myself with an altogether different body (for example, with four legs and a tail)? How much can I change without ceasing to be the person I am now? These are only some of the riddles associated with the elusive

concept of personal identity. Still others are suggested by more recondite possibilities: resurrection of the dead, reincarnation, transmigration of souls, bodily transfers, multiple or alternate possession of a body by various persons, brain transplants, and "brain rejuvenations"-examples drawn from theology, psychic research, abnormal psychology, and science fiction.

The section on "Personal Identity and the Survival of Death" starts off with three famous philosophical accounts of personal identity and selfhood. John Locke argues that it is a person's consciousness, in the form of memories of past experiences, that make him or her the same person through different times, even as the body completely changes its characteristics and appearance. If the mind of a prince were magically inserted into the body of a cobbler, Locke argues in a famous example, we would all say that the person with the cobbler's appearance is the prince, and that only his body, not his personal identity, has changed. Thomas Reid, the eighteenth century Scottish philosopher whose attack on skepticism and idealism is included in Part 2, develops a theory of personal identity in Part 3 that was motivated in large part by his dissatisfaction with the theory of Locke's, which was already famous in his time. A human person, Reid argued, is quite unlike a physical object, which is constantly changing its properties so that over a period of time it will have nothing in common with, and hence not be identical with, its earlier precursors. Persons, on the other hand, are simple and indivisible, thus capable of maintaining their identities throughout their histories. The unregenerate skeptic David Hume, however, arguing from empiricist premises, rejects the claim that there is such a thing as an unchanging substantial self as opposed to the relatively fleeting thoughts and feelings revealed in introspective consciousness-that which passes as "selfawareness."

Derek Parfit, a contemporary philosopher who teaches at Oxford, takes Hume's views quite seriously. Indeed, he defends a claim very like that of Hume, and also, as it turns out, that of the Buddha. Parfit's defense is based on a kind of example that he has helped to make famous in philosophical circles-one involving divided brains, and our intuitions about who is who after such operations.

It is just this sort of example that serves as the basis for the next selection, a fictional tale designed to test philosophical theories and induce philosophical perplexity. Daniel Dennett spins a yarn in which the leading character (one Daniel Dennett, philosopher and patriot) is separated from his brain. His subsequent adventures are enough to throw our commonsense notions of selfhood and identity into complete disarray and to challenge the philosopher to put them in order again. Philosophers who have attempted to do this have struggled against a rising tide of ingenious hypothetical examples. Their efforts are often directed at first to the general problem of identity, not restricted to the case of identity between persons. When a physical object like a sock or a ship begins with one set of properties and very gradually changes these properties, can we say at a later time that the new object is the same object that we began with? How different from the earlier object can the later object be and still be identical to the original? Similar questions asked about humans, of course, are likely to be more interesting to us. Am I the same person I was when I emerged from the womb? If I am a genuinely penitent, morally newborn criminal who has been on death row for ten years, can my lawyer claim that I am not the same man who committed a brutal murder a decade earlier? What if my earlier self arranged with a surgeon, in a science fiction example, to transplant my brain in another person and that person's brain in me?

In the deathbed dialogue by John Perry that concludes this section, Professor Perry focuses sharply on the area where the problem of survival and the riddles of personal identity

intersect. A dying professor, her old friend (a clergyman), and her student discuss quite spontaneously the famous philosophical theories of John Locke, Joseph Butler, and Anthony Collins—seminal thinkers of the seventeenth and eighteenth centuries—about personal identity. At issue is the question of what sense, if any, can be made of the very idea of personal survival.

In Defense of Mind-Body Dualism

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How quaint, the idea that our minds somehow float free of the cold, hard, physical world. Surely dualism is the stuff of fantasy, an indulgence of poets and daydreamers, an echo of antiquated worldviews long ago demolished by the relentless progress of science. Though we may occasionally find comfort in imagining that our minds are special, in our more sober moments we must face the facts: our thoughts and feelings, and those of our loved ones, are just as much a part of the brute material order as sticks and stones.

This sentiment expresses a common attitude. The prevalence of this attitude may explain why physicalism, the view that sensations and other mental states are entirely physical, is generally the default position about the mind. On first approaching the mind-body problem, most scientifically minded people assume that physicalism simply has to be true.

However, the sentiment above seriously misrepresents present-day versions of dualism, the belief that some mental states are nonphysical. Many contemporary dualists are fully naturalistic. That is, they hold that mental states are just as much a part of the natural order as sticks and stones; and they favor a scientific approach to the mind, one that is independent of religious considerations. In essence, the contemporary dispute between physicalists and naturalistic dualists is a disagreement about what kinds of data there are about the nature of mind, and what sort of theory—dualist or physicalist—best explains the data.

philosophers. According to the identity thesis, every type of mental state is identical to some type of physical state. Here is an example of a particular identity claim, relating pain to C-fibers, a group of nerve cells that fire when pain is experienced. In this essay, I defend naturalistic dualism. I take, as my starting point, an argument made by Rene Descartes in his *Meditations*. I expand and defend this argument, drawing on some ideas developed by contemporary philosophers. The expanded argument is, I think, much more powerful than most physicalists recognize. After making my case for dualism, I offer some criticisms of physicalism. The paper will close by defending dualism from the charge that the picture of reality it provides is unacceptably spooky.

But first, I must explain in more detail the point at issue between physicalists and dualists. What is it, precisely, that physicalists assert, and dualists deny? Our answer to this question will reveal the type of reasoning that a defense of dualism must employ.

1. PHYSICALISM, DUALISM, AND THE NEED FOR THOUGHT EXPERIMENTS

Physicalism comes in various forms. I will focus on the most straightforward version, the identity thesis, which has been defended by numerous

(P) Pain = C-fiber stimulation²

In this statement, "pain" refers to a type of sensation, the type of sensation you have when you stub your toe or bite your lip. This type of sensation is usually caused by tissue damage (in the toe or the lip), but it needn't be. For instance, a person who has had both feet amputated could nonetheless experience the "stubbed toe" sensation. So damage to the toe is merely the ordinary cause of that sort of sensation; the sensation itself is not spatially located in the toe. And it is the sensation itself, not its cause, which is most obviously a mental state. Throughout this essay, "pain" will refer to the sensation itself, and not its usual or real cause.

Actually, identity theorists are not committed to any particular identity thesis, such as (P). Their key claim is that every type of mental state is identical to some type of physical state, but they needn't claim that science has yet uncovered any particular identities. Still, (P) illustrates the kind of identity the physicalist has in mind. I will continue to use it in this way.

The first thing to notice about (P) is that it is extremely strong. It does not say merely that pain is perfectly correlated with C-fiber stimulation. Nor does it say that pain will always accompany, and be accompanied by, C-fiber stimulation. Rather, it says that pain just is-is nothing over and above-C-fiber stimulation. This means that pain couldn't possibly be present in the absence of C-fiber stimulation, or vice versa, any more than Superman could be present in the absence of Clark Kent, or water could be present in the absence of H₂O. So an identity statement goes beyond a claim about what is actually the case, to a claim about what is possible-or, really, what is impossible.

Because identity statements (statements about what is identical to what) entail that certain scenarios are impossible, they cannot be confirmed by empirical methods alone. To see why

this is, imagine that we are in the best-case situation for empirical investigation: We are somehow able to monitor all of the creatures in the universe, and to determine which creatures have C-fibers that are undergoing stimulation, and which creatures are experiencing pain. (To determine whether people are experiencing pain, we might simply ask them; to determine this for infants and animals, we might observe their behavior.) Suppose that we learn that these are perfectly correlated: C-fiber stimulation is present in all and only those creatures that are currently experiencing pain. Even this very tidy result does not establish the identity thesis, for we still do not know whether it is possible that one of these be present in the absence of the other. The perfect correlation might be an odd coincidence. Or, more plausibly, it might be that one of these causes the other. (A prominent dualist position holds that physical events, like the firing of C-fibers, cause mental events like pain. This allows us to explain how aspirin can block pain by affecting the brain.) Or it might be that pain and C-fiber stimulation are products of a common cause: Perhaps stubbing one's toe simultaneously causes both the pain sensation and C-fiber stimulation. These explanations of the correlation are alternatives to saying that pain is identical to C-fiber stimulation (e.g., if C-fiber stimulation causes pain then these cannot be identical, for nothing causes itself).

The upshot is that even a perfect correlation does not establish the identity thesis. It shows only that one of these factors is not, in fact, present in the absence of the other. But it does not show that one of these factors could not possibly be present in the absence of the other. And the identity thesis requires this latter, stronger claim.

If the identity thesis is true, then physicalism is true. Dualists deny the identity thesis, and believe that mental states are distinct from (that is, they are not identical to) physical states. Dualism thus implies that it is possible that pain is present in the absence of C-fiber stimulation. Dualists can accept that these are perfectly correlated; but, they claim, these are two distinct states, and so it is not impossible that one is present while the other is absent. (Again, perhaps

their perfect correlation is due to some causal connection.)

I will defend dualism by arguing that it is possible that you experience pain even if you are in no physical state, that is, even if you have no body whatsoever. If pain can occur in the absence of any physical state, then physicalism is false.³

Because the dispute between physicalism and dualism concerns whether a particular scenario is possible, empirical evidence will not resolve it. We must therefore turn to another sort of evidence, gained from thought experiments. Thought experiments can help us to determine whether situations that don't actually occur-such as the presence of pain in the absence of C-fiber stimulation-are nonetheless possible.

Unlike scientific experiments, which are ordinarily conducted in a laboratory, thought experiments are conducted from the comfort of the armchair. One performs a thought experiment by attempting to imagine a given scenario, and then carefully reflecting on the outcome of this exercise. It may seem odd to think that such armchair reflection can yield genuine progress on a thorny issue like the mind-body problem. But because the dispute between physicalists and dualists concerns the sheer possibility of a given scenario, neither of these positions can be established without thought experiments.⁴

Here are some examples of thought experiments designed to reveal whether a given scenario is possible.

(A) You have never seen a book that is 100 feet tall. (According to Guinness World Records, the world's largest book-a photographic tour of the Asian country of Bhutan-is 5 feet tall by 7 feet wide.) Still, a moment's reflection reveals that you can imagine a 100-foot-tall book. While the high costs of production and the dim sales prospects mean that no one is likely ever to create such a book, these impediments don't absolutely rule out its creation. For instance, it is easy to imagine the production being financed by an eccentric millionaire.

We have just resolved the question, "Is it possible that a book be 100 feet tall?" by use of a thought experiment. On reflection, there seemed to be only practical obstacles to the creation of a 100-foot-tall book, and we could imagine overcoming those obstacles. Short of building the giant book ourselves, it is hard to see how this question could be resolved without the use of thought experiments.

(B) You have never seen an object that is blue all over and (simultaneously) orange all over. Can you imagine such an object? It seems clear that you cannot. This exercise of imagination leads you to believe that nothing could possibly be blue all over and orange all over.

(C) You have never encountered a married bachelor. I expect that you will find yourself unable to conceive of a married bachelor, since you will be unable to conceive of a married person who meets the requirements for being a bachelor (which include, of course, being unmarried). Because nothing can be simultaneously married and unmarried, it is impossible that there be any married bachelors.

In the first two cases, you drew on your concepts (book, blue object, etc.) in trying to imagine the described scenario. But in this third case your concepts are more directly involved, because the thought experiment involves conceiving rather than imagining. To imagine something is to form a sensory (perhaps visual) picture of it. Because no picture of a man will fully express his marital status, mere imagination will not do the trick here. Rather, you exercise the concepts directly, and find that you cannot conceive of a married bachelor because your concept bachelor includes the concept unmarried, and nothing that satisfies that concept can simultaneously satisfy the concept married. (It is no surprise that conceive and concept have the same Latin root.)

Of course, the results of a thought experiment are not guaranteed to be accurate. Like experiments done in the laboratory, thought experiments can go astray in any number of ways: Your imagination may be limited in a way that makes you unable to imagine a 100-foottall book; you may mistakenly think that 'bachelor' refers to any man who lives alone; etc. But as with other types of experiment, these mistakes can be minimized if we take care in designing and performing the experiment. Most importantly, engaging in thought experiments is our only way of determining whether scenarios that haven't actually occurred, and will never actually occur, are nonetheless possible.

In these thought experiments, we try to imagine or conceive a particular scenario, to determine whether it is possible. This exercise is known as a conceivability test. There are other types of thought experiments as well, but conceivability tests lie at the heart of most of the leading arguments for dualism, including the one that I will now present.

2. THE DISEMBODIMENT ARGUMENT

The argument that I will use is a descendant of an argument given by Descartes. I will call it the Disembodiment Argument. Its basic structure is disarmingly simple, but of course the devil-or, as Descartes might say, the malicious demon-is in the details.

The argument centers on the possibility that pain is present in the absence of any physical states. Arguments for dualism usually focus on pain or other sensations, because the experience of sensations seems to present the greatest challenge to physicalism. Descartes himself believed that thoughts, such as "my senses sometimes mislead me," posed an equal challenge to physicalism, but contemporary philosophers are divided on that claim. We needn't concern ourselves with that issue. If our argument succeeds in showing that pain can be present in the absence of any physical state, we will have established dualism, for we will have shown that pain is not identical to anything physical, and thus that at least some mental states (viz., pains) are not physical. And that is precisely what the dualist maintains, and the physicalist denies.

As with other thought experiments, this one requires that you actively engage in the exercise of imagining or conceiving. This will unfortunately require a tiny bit of pain. So pinch yourself-lightly!-and, while doing so, put yourself into the position of the "I" in the following line of reasoning.

1. Even though I firmly believe that I have physical features, I can conceive of experiencing this very pain while possessing no physical features. In other words, I can conceive of experiencing this very pain while disembodied.

2. If I can conceive of a particular scenario occurring, then that scenario is possible.

So,

3. It is possible that this very pain occurs in a disembodied being.

4. If this very pain was identical to some physical state, then it could not possibly occur in a disembodied being.

So,

5. This very pain is not identical to any physical state.

So,

(Conclusion) The identity thesis, which says that every mental state is identical to some physical state, is false.

The major premises in this argument are (1) and (2). Premise (3) follows from these; premise (4) expresses an accepted fact about the nature of identity; and premise (5) follows from

(3) and (4).

The best way to target this argument, then, is to deny either (1) or (2). This is precisely what physicalists have done. I will first discuss premise (2), and then take up premise (1).

Premise (2)

The chief criticism of premise (2) is that it involves a kind of intellectual hubris. In conceiving of something, we are simply exercising our concepts. And why should we think that our concepts accurately reflect the way the world is? Perhaps we are out of touch with reality, and our concepts don't correspond to real objects or properties. In that case, the fact that we can conceive of a particular scenario occurring provides no reason to think that that scenario is genuinely possible.

In reply to this criticism, it is crucial to note that all of our reasoning-in philosophy and elsewhere must use some concepts, to define the topic we are investigating. In biology, we begin with some concept of reproduction, which empirical investigation may lead us to refine. In ethics, we begin with some concept of the good, which philosophical reasoning helps us to clarify and develop. And of course physicalists also rely on concepts-including concepts of the physical in defending their view.

Occasionally, we may find that nothing satisfies a given concept, and so we may abandon investigations relating to it. This is what happened in the case of witchcraft: Most people came to deny that anything in reality corresponded to the concept witchcraft, and the study of witchcraft was replaced by research into superstitions and mental pathologies, phenomena that led to the mistaken belief in witchcraft. But while we must allow for the possibility that we'll refine or even abandon our concepts, concepts are indispensable at the outset of an investigation. For there is no way to proceed with an inquiry unless we have some concept of the subject matter we are investigating. The blanket objection that conceivability arguments are illegitimate because they use our concepts is, then, misguided.

However, there is a more nuanced version of the worry that premise (2) oversteps our intellectual bounds. Unlike the previous objection, this one acknowledges that we must employ concepts in order to reason at all. And it concedes that thought experiments using simple, straightforward concepts such as bachelor can help us to determine what is possible. But it rejects premise (2) on the grounds that it is too general: Not everything we can conceive is possible. For some of our concepts are clouded or obscure, and so cannot play the proper role in conceivability tests. In particular, this objection says that our concepts pain and physical are limited or unclear. Using such faulty concepts, what we can or cannot conceive does not reveal what is or is not possible.

This type of objection was advanced against Descartes' original argument by his contemporary Antoine Arnauld. Arnauld pointed out that a geometry student who hadn't yet encountered the proof of the Pythagorean Theorem could argue as follows:

I can conceive of a right triangle with the following property: the square of its hypotenuse is unequal to the sum of the squares of its other two sides. Therefore, it is possible for a right triangle to have this property.

Clearly, this argument is invalid: The fact that the student could conceive this scenario does not mean that the scenario is possible.

Descartes anticipated Arnauld's objection, and had a ready response. He acknowledged that his argument will fail unless the relevant concepts are "complete and adequate." The student was able to conceive of a right triangle that violated the Pythagorean Theorem only because his

concept right triangle was limited. But our concepts of mentality and of the physical are not limited in this way, or so Descartes claimed. That's why he thought that our ability to conceive disembodied pains was genuine evidence that disembodied pains were possible.'

In effect, Descartes' reply deflects attention away from premise (2), and makes premise (1) the focus of the argument. For everyone can agree that, if we have a comprehensive understanding of something, then conceivability tests provide a reliable guide to what is possible, involving that thing. It is because you fully understand what it means to be a bachelor that, when you find yourself unable to conceive of a married bachelor, you can justifiably conclude that it's impossible that anything be a married bachelor. And if the geometry student gained a comprehensive grasp of right triangles, then he could similarly rely on conceivability tests. For a comprehensive grasp of right triangles would prevent him from conceiving of a right triangle that violated the Pythagorean Theorem.

Let us agree, then, that conceivability tests can reveal what is possible or impossible, so long as the concepts involved are sufficiently comprehensive. This amounts to qualifying premise (2), to read as follows:

2.* If, using concepts that are sufficiently comprehensive, I can conceive of a particular scenario occurring, then that scenario is possible.

Our new premise (2*) is unobjectionable, for it is trivially true. To say that a concept is "sufficiently comprehensive," in this sense, is just to say that it is suitable for use in conceivability tests. It follows, then, that conceivability tests using sufficiently comprehensive concepts reveal what is (and what is not) possible.

Because (2*) is trivially true, the burden of the argument now falls on the first premise. Let us consider premise (1) in more detail.

Premise (1)

We must modify premise (1) to fit our new second premise. It now becomes (1*).

1.* Using concepts that are sufficiently comprehensive, I can conceive of experiencing this very pain while disembodied.

Together, (1*) and (2*) yield (3), so the rest of the argument proceeds as before.

Again because (2*) is trivially true, the entire weight of the argument now rests on (1*). To evaluate (1*), we must determine whether the concepts at work in the "pinch" test are sufficiently comprehensive. That is, when you conceive of experiencing this very pain (the pinch) while disembodied, are your concepts pain and physical sufficiently clear and complete, like your concept bachelor? Or might they be confused or incomplete, like the geometry student's concept right triangle?

This is the core issue on which the Disembodiment Argument rests. The argument will succeed only if your concepts of pain and of the physical are sufficiently comprehensive to allow you to conclude, from the fact that you can conceive of experiencing pain while disembodied, that this is possible. Physicalists generally deny this. They believe that, in conceiving of disembodied pain, we are like Arnauld's geometry student, who conceives of a right triangle that violates the Pythagorean Theorem.

I now turn to discuss our concepts of the physical and of pain. We will see that pain plays a much more important role in the Disembodiment Argument.

3. OUR CONCEPT OF THE PHYSICAL

Consider what "physical" means. What conditions must something meet in order to qualify as physical?

Descartes thought that the essence of the physical was to be extended in space. But modern physics posits as fields and

waves—that sit uncomfortably with the notion of spatial extension. And because modern physics is still evolving, we should not define the physical in terms of a currently favored theory. For further advances in physics might eventually lead us to reject whatever theory we currently favor.

In response to these worries, many philosophers now conceptualize the physical, for purposes of the mind-body problem, as "the inanimate" or "the nonmental." ⁷ In this way, the concept physical is defined by contrast with the concepts animate or mental. This suggestion nicely captures the issue at hand. On this reading of "physical," the central point of contention between physicalists and dualists is as follows:

Are mental states ultimately, fundamentally nonmental? Are mental states, states of mental things like you and me, ultimately identical (or reducible) to states that are also had by inanimate, nonmental things, like sticks and stones?

The dualist will answer "no," claiming that mental states are part of the basic fabric of the universe. The physicalist will answer "yes," claiming that mental states are simply patterns of basic physical (that is, nonmental) phenomena. I propose that we adopt this way of conceptualizing the physical. States that are physical, in this sense, are ultimately constituted by phenomena that are nonmental.

As regards the Disembodiment Argument, this understanding of physical will affect how you perform the conceivability test described in (1*). To be disembodied is to have no physical/ultimately nonmental features. So you are to attempt to conceive of experiencing this very pain while being a purely mental entity, an entity that, at least for a moment, has no features in common with sticks and stones.⁸

I now turn to the more significant concept for our purposes, the concept pain.

4. OUR CONCEPT OF PAIN

Recall that the Disembodiment Argument will succeed only if our concept of pain is sufficiently comprehensive, in the sense explained above. Is it?

Someone with the concept pain might be ignorant of non-essential features of pain: for instance, whether aspirin or ibuprofen more quickly relieves pain. But such features are not relevant to the possibility of disembodied pain. The Disembodiment Argument requires only that we grasp the essential features of pain, those that are relevant to the possibility of disembodied pain.⁹

Still, establishing that our concept pain is sufficiently comprehensive, in this sense, is a difficult task. The standard expressed by "sufficiently comprehensive" is very high, and as physicalists are quick to point out, most of our concepts do not meet this standard. The classic example concerns water. Before learning chemistry, each of us could presumably conceive that water was present in the absence of H₂O. And arguably, we can still conceive this. (For we can imagine that chemists develop a new technique for analyzing substances and that, using this technique, they discover that all of the stuff we call "water" contains an additional element, one undetectable by previous methods.) But while we can conceive that water is present in the absence of H₂O, this scenario is of course impossible, because water simply is H₂O. Clearly, then, our concept water is not sufficiently comprehensive to be used in this type of conceivability test.

Physicalists who cite the water example predict that, once neuroscience has developed more fully, we will come to regard our ability to conceive of disembodied pain in a similar way.

That is, we will see that it involves the use of inadequate concepts, and therefore provides no real evidence for the possibility of disembodied pain, just as our ability to conceive of water that is not H₂O provides no evidence for the possibility of non-H₂O water.

To defend the Disembodiment Argument, we need to block the analogy between water and pain. This requires showing that our concept pain is importantly different from concepts such as water, to justify the claim that pain (unlike water) is sufficiently comprehensive. And this is precisely what I will now attempt to do.

First, we must understand why our concept water is not sufficiently comprehensive. It fails to meet this standard for a simple reason. Namely, we conceptualize water as something that has a hidden essence, an essence that can be discovered only by careful scientific investigation. (The hidden essence of water is in fact H₂O.) This is why armchair reflection will not reveal whether nonH₂O water is really possible.

simultaneously, evidence for pain and pain itself. This is evidence of the standard sort: that hurting sensation. That sensation is both the appearance of pain and the reality of pain. But we don't conceptualize pain this way. We conceptualize pain as something that has no hidden essence. Pain wears its essential nature on its sleeve, as it were.

Here we have reached the fundamental, driving idea behind the Disembodiment Argument. As we conceptualize pain, pain has no hidden essence. If you feel that you are in pain, then you are in pain; determining whether you are in pain does not require scientific investigation. For the appearance (feeling) of pain just is pain itself. As one contemporary commentator has put it, "there is no appearance/reality distinction in the case of sensations" such as pain.¹⁰

How does this the appearance of pain is pain us to defend (1*)? The challenge, in defending (1*), is to show that our concept pain is sufficiently comprehensive for use in conceivability tests. The observation that the feeling of pain is pain accomplishes this. To determine whether you are really in pain, you need not investigate beyond the feeling of pain. For instance, you need not examine your brain to see whether your C-fibers are undergoing stimulation. (By contrast, investigation is required to determine whether something that seems like water—that looks and tastes like is water.) This implies that pain has no hidden essence. So even if pain is perfectly correlated with C-fiber stimulation, C-fiber stimulation is not essential to pain; for if it were, then C-fiber stimulation would be the hidden essence of pain, and you couldn't be sure that you were in pain unless you determined that your C-fibers were firing. And if C-fiber stimulation is not essential to pain, then it is not impossible that pain be present in the absence of C-fiber stimulation. Hence, pain is not identical to C-fiber stimulation.

Let me be clear about my case here. I am not suggesting that we can't be mistaken about pain.¹¹ My point is just that there is some evidence for pain that is absolutely conclusive, for it is,

Nor am I suggesting that the conceivability test at the heart of the Disembodiment Argument is easy to perform. You must pay close attention to your current "pinching" sensation, making sure that you are not reading more (or less) into it than what it presents. And you must carefully engage in the exercise of conceiving. This is why Descartes advised that, before engaging in the Meditations, we should find a quiet place and free our minds from distractions.

But as long as you exercise care, you should be able—through keeping your attention on the pinching feeling, while simultaneously trying to conceive that you are disembodied—to confirm, or disconfirm, (1*) for yourself. For my part, I find that this exercise confirms (1*). And because I assume that we are basically similar, as regards our sensations and concepts, I

expect that you will find this as well.

This is, then, the basic argument for dualism. As modified, the key premise of the argument is (1*). That premise is supported by the simple but powerful thought that, according to our concept pain, the feeling of pain is pain; pain has no essential features that are hidden. So in attending to the pinching sensation, we have access to the essential feature of pain, namely, how it feels. This means that our concept pain is sufficiently comprehensive for use in conceivability tests. Your ability to conceive of disembodied pain therefore establishes that disembodied pain is possible, even if (in fact) everyone who experiences pain also has a body. This possibility refutes the identity thesis and establishes dualism.

5. A PHYSICALIST OBJECTION

Physicalists have put forth the following objection to this kind of argument:

The argument shows only that, according to our concept pain, pain may be present in the absence of C-fiber stimulation. Still, we must bear in mind the example of water. According to our concept water, water may be present in the absence of H₂O. Just as the latter case does not lead us

to doubt that water = H₂O, the former case should not lead us to doubt that pain = C-fiber stimulation.

As I explained in Section 2, our concepts define the subject matter that we are investigating. And our concepts also determine how we interpret evidence. It is because we conceptualize water as something that has a hidden essence that our discovery that water is correlated with H₂O leads us to believe that water = H₂O. If we conceptualized water differently-e.g., as any clear liquid-then we wouldn't accept "water = H₂O."

By the same token, our concept of pain defines what it is that we are investigating when we try to understand the nature of pain. According to this concept, we are investigating that hurting sensation. And because pain has no hidden essence, according to our concept, the discovery that pain is correlated with C-fiber stimulation will not justify "pain = C-fiber stimulation."

Above, I said that empirical investigation could not establish that a certain scenario is impossible. This is why even a perfect correlation between pain and C-fiber stimulation could not establish that it is impossible that pain be present without C-fiber stimulation, and hence could not establish that these were identical. How, then, did empirical investigation establish that water = H₂O? The answer is simple: Empirical investigation did not single-handedly establish this. Empirical investigation established only a correlation between water and H₂O. What justified the identity claim was an additional fact, a fact about our concept of water, namely, that we conceptualize water as having a hidden essence. But we don't take the fact that a substance has a particular appearance (it is clear, drinkable, etc.) to be conclusive evidence that it is water; rather, we think that, to conclusively determine whether something is water, we must discover its microstructure. The fact that water has a hidden essence was already implicit in our concept water; and this is why the discovery that water was perfectly correlated with H₂O led us to believe that H₂O was the hidden essence of water, and hence that water = H₂O.

By contrast, we don't think of pain as having a hidden essence. This is why you treat the appearance of pain-that hurting sensation-as conclusive evidence that you are in pain. And it is why we don't need scientific investigation to discover the essence of pain, though of course such investigation can discover interesting and important facts about pain.

Above, I said that concepts are crucially important because they define the topic that we are investigating. Anyone who interprets the correlation between pain and C-fiber stimulation as

evidence that pain = C-fiber stimulation is straying from our concept, and hence simply changing the topic. The topic we're investigating, pain, is defined by our concept pain; and according to that concept, pain has no hidden essence.

But why not simply change the topic, and claim that nothing corresponds to our original concept pain, because every mental state has a hidden physical essence? The problem with this move is that we can still ask why we should accept the claim that pain = C-fiber stimulation. In the case of other identities, such as water = H₂O, there is a simple answer: You conceptualize water as having a hidden essence, and empirical investigation has discovered that H₂O is that hidden essence. Because there is no parallel justification for "pain = C-fiber stimulation," we have no reason to accept that identity claim.

Arguably, this distinctive feature of our pain concept—that, as we conceptualize pain, the appearance of pain is its reality—is possessed only by mental concepts. For our concepts of nonmental things do attribute a gap between whether the thing appears to satisfy the concept and whether it actually does so. If this is correct, our argument for dualism cannot be applied to anything that is not mental.

6. BUT WHAT ABOUT MENTAL CAUSATION?

The previous section discussed a physicalist objection to the method used in the Disembodiment Argument. However, a physicalist might instead criticize the conclusion of that argument, as follows:

The Disembodiment Argument does provide some reason to think that disembodied pain is possible.

But we should not embrace this conclusion until we carefully examine its consequences. And in fact the conclusion has one consequence that is utterly unacceptable: if dualism is true, then our mental states do not truly cause our bodily movements. That is, dualism leads to epiphenomenalism, the claim that the mental has no physical effects. But epiphenomenalism is repugnant.¹² So even if we are not sure quite where the argument goes wrong, it must go wrong somewhere.

Leading arguments for physicalism rest on the idea that accepting the identity thesis is the only way to preserve mental causation. But only a very strong version of the identity thesis will salvage mental causation as intended; and that version of the thesis faces problems that are as serious as the worry about epiphenomenalism. Or so I will argue.

The identity thesis is usually motivated by the following idea. If we want to explain why I leaped out of my chair (a physical event), we need not invoke anything other than previous physical events: I sat on a thumb tack, and this caused (via a train of other physical events) C-fiber stimulation, which then caused my leap out of the chair. To say that such an explanation requires us to invoke a mental state like pain in addition to C-fiber stimulation would be to deny that physics is complete. But all of our evidence is that physics is complete: We have never encountered a case where we were forced to go beyond the realm of the physical to explain a physical event. Now if physics is complete, then citing physical events will suffice to explain my leaping out of the chair. We need not mention pain in this explanation. So if pain causally contributes to my leaping from the chair, then pain must be physical—that is, it must be identical to a physical state such as C-fiber stimulation.

There are various objections that could be made to this argument. To my mind, the most promising is this: The nature of causation, and what it means to say that one event caused another, is far from clear. For example, David Hume argued that the best we can expect, in attempting to explain why an event occurred, is to identify a regularity: This type of event is

regularly preceded by that type of event. But then why not say that suddenly leaping out of one's chair is regularly preceded by feeling pain? The physicalist will claim that there is also a physical event that regularly precedes such leaping, and so the mental event is superfluous. However, this response assumes that, in a competition between mental and physical causes, the physical cause will always win out. (Why not say that it is the physical event that is superfluous?) This assumption would be justified if we had some deeper account of how physical causation occurs, one that favored physical-to-physical causation over mental-to-physical causation. But there is no accepted understanding of how causation occurs; and contemporary Humeans believe that there is no deeper fact about how causation occurs, because causal statements merely report regularities. The bottom line is this: Physical causation is largely a mystery, and so we should be hesitant to use our limited understanding of physical causation to rule out the possibility of nonphysical causation. The argument that dualism commits us to epiphenomenalism is far from conclusive.

But even if you think that the identity thesis better accommodates mental causation, it faces another problem, sometimes called the problem of chauvinism. If pain = C-fiber stimulation, then creatures whose physical structure differs significantly from ours cannot feel pain. In other words, the identity thesis is chauvinistic, because it identifies pain with a physical state that may be specific to creatures on Earth.

To see the problem, suppose that we encounter an alien civilization that seems very similar to ours. In this civilization, legislative debate is often reduced to partisan squabbles. Its members spend their leisure time in a range of activities, from hiking to watching reality TV. It seems easy to imagine that aliens whose activities were so similar to ours could nonetheless differ physiologically from humans. Perhaps their planet does not have the abundance of H₂O and oxygen that Earth has, and so their physical and neural constitution is very different from ours. Even so, it seems entirely conceivable that such creatures feel pain. (We can suppose that some of these aliens are in hospitals, recovering from surgery.) But if pain is just C-fiber stimulation, then no creature who lacked C-fibers could possibly feel pain. The identity thesis does seem to be objectionably chauvinistic.

To my mind, it is highly implausible that the capacity for pain requires a physical constitution like ours. Remember, what is at issue here is not the likelihood that there are alien creatures who feel pain; it is the sheer possibility of this scenario. And it seems incredible that pain couldn't possibly be experienced by creatures who lacked C-fibers.

I have argued that, while the concern about whether dualism can do justice to mental causation is legitimate, the reasoning to show that dualism commits us to epiphenomenalism is open to question. Accepting the identity thesis obviously commits us to chauvinism, but it is not entirely clear that accepting dualism commits us to epiphenomenalism. And chauvinism is at least as repugnant as epiphenomenalism.

Some physicalists have responded to the chauvinism problem by retreating from the simple version of the identity thesis. In its simple version, the identity thesis claims that each type of mental state is identical to some type of physical state. The retreat from this simple version claims that pain in humans is identical to C-fiber stimulation; pain in aliens may be identical to some other physical state.³ This move does avoid the chauvinism problem. But the retreat from the simple identity thesis means that we cannot explain such seemingly obvious causal generalizations about pain as "being in pain causes one to urgently try to change one's situation." For there is no single property that answers to "being in pain"; there is pain-in-humans, and pain-in-aliens, but on the proposal being considered, these are completely different

properties. Because this modification of the identity thesis prevents us from allowing for familiar causal generalizations, it limits the alleged causal benefits of physicalism.

Until this point, I have been concerned solely with "identity" versions of physicalism. But in the face of the difficulties I have described, some physicalists adopt a weaker position, claiming that the relations between physical and mental states fall short of identity. Unfortunately, this weaker, "nonreductive" brand of physicalism faces precisely the same worries about epiphenomenalism that dualism allegedly faces. For the epiphenomenalism worry stems from the claim that pain C-fiber stimulation. So long as my pain isn't identical to the firing of my C-fibers, then we can always ask which of these factors caused me to leap out of the chair. Was it the pain, or was it the C-fiber stimulation? The danger is that the physical factor will fully explain my leap, and thus the mental factor will be superfluous.¹⁴ The benefit of the identity thesis is that it blocks such questions. (Compare: Because Superman is identical to Clark Kent, it makes no sense to ask whether it was Superman or Clark Kent who stepped out of the phone booth.) Because avoiding epiphenomenalism is the chief consideration in favor of physicalism, these weaker physicalist positions seem unmotivated. Finally, it's worth noting that these weaker brands of physicalism are just as vulnerable to the Disembodiment Argument, for even the weakest brand of physicalism must hold that you could not feel the pinch you're feeling right now if you were disembodied.

Let me sum up the results of this section. According to physicalists, dualism implies that mental events, such as thoughts and sensations, never have physical effects. Many physicalists claim that the only way to avoid this "repugnant" epiphenomenalism is to accept the identity thesis. In response, I have outlined an objectionable consequence of the identity thesis: that those with different physical constitutions could not possibly experience pain or any other sensation that we experience. This chauvinistic result is at least as worrisome as epiphenomenalism. And the simple identity thesis is patently chauvinistic, while it is less clear that dualism leads to epiphenomenalism. Chauvinism can be avoided by modifying the identity thesis, but this modification sacrifices much of the alleged causal benefits of the identity thesis.

7. BUT ISN'T DUALISM SPOOKY?

Despite all this, there may be a lingering sense that dualism is just plain weird, or spooky.

But is dualism any spookier than physicalism? Bertrand Russell observed that those who accept the findings of modern science are hardly in a position to accuse dualists of spookiness.

The plain man thinks that material objects must certainly exist, since they are evident to the senses. Whatever else may be doubted, it is certain that anything you can bump into must be real; this is

the plain man's metaphysic. This is all very well, but the physicist comes along and shows that you never bump into anything: even when you run your hand along a stone wall, you do not really touch it. When you think you touch a thing, there are certain electrons and protons, forming part of your body, which are attracted and repelled by certain electrons and protons in the thing you think you are touching, but there is no actual contact.... The electrons and protons themselves, however, are only crude first approximations, a way of collecting into a bundle either trains of waves or the statistical probabilities of various different kinds of events. Thus matter has become altogether too ghostly to be used as an adequate stick with which to beat the mind.^{L'}

Russell's point is that commitments of physical science, which is unquestionably naturalistic, are just as spooky or "ghostly" as dualism. And Russell was writing in 1935; subsequent advances in physics have made the physical realm appear all the more exotic.

Contemporary physicists do not agree on the basic structure of the world, but the entities posited by relatively mainstream physical strings, basic particles subject to quantum spooky enough.

Surely, dualism does not spookify our overall picture of the world. That picture was already plenty spooky, due to the progress of physics itself. So there is no reason to hold that dualism is spooky, or that it conflicts with a broadly scientific, naturalistic picture of reality.

Conclusion

Most contemporary thinkers believe that minds are part of the natural order, and that scientific research can yield important information about how the mind works. Naturalistic dualists agree. And dualism is not undermined by empirical evidence, because empirical evidence reveals only correlations. Moreover, dualists can accept causal explanations of these correlations (e.g., the correlation between taking aspirin and pain reduction is explained by the fact that aspirin suppresses the biochemicals responsible for activating C-fibers).

At the outset of this essay, I noted that the dispute between physicalists and dualists can be interpreted as a disagreement as to what kinds of data there are about the nature of mind, and what kind of theory will best explain those data. The thought experiment at the center of the Disembodiment Argument provides data that favor dualism: We seem able to conceive of disembodied pain. Given that our concept of pain appears to be sufficiently comprehensive for use in a conceivability test, the proper conclusion is that pain could be present in a being that lacked physical features. This means that dualism is true.

Physicalists will discount the importance of data generated by conceivability tests. But these data are essential to defining the topic at hand, whether that topic is bachelors, water, or pain. So any claim that clashes with these data diverges from our original topic, and should therefore be rejected. The claim that "pain = C-fiber stimulation" clashes with the data generated by our conceivability test. It thus diverges from our original as defined by our concept pain and hence we should reject it.

Any naturalist worth her salt will follow the evidence where it leads. And in this case, the evidence leads to dualism.

NOTES

1. My development of this argument most closely parallels Saul Kripke's argument in Lecture III of his book *Naming and Necessity* (Cambridge, MA: Harvard University Press, 1980). The other leading contemporary arguments for dualism are also naturalistic: Frank Jackson's Knowledge Argument, given in "The Qualia Problem," in this volume; and David Chalmers' Zombie Argument, given in Chapter 4 of his book *The Conscious Mind* (Oxford: Oxford University Press, 1996). Some of the ideas in this essay borrow from these other arguments as well.

2. This is a type-identity thesis: it identifies a type of mental state with a type of physical state. For simplicity, I will focus on type-identities. But my argument also challenges the thesis that every particular (or "token") mental state, such as the pain I'm feeling right now, is identical to some particular ("token") physical state. This latter claim is known as a token-identity thesis. Unlike the typeidentity thesis, it allows that two instances of a single mental type (such as pain) can belong to different physical types. This distinction will surface briefly in Section 6.

3. Some philosophers believe that conceivability arguments in this direction don't succeed in

undermining physicalism, since my ability to conceive of disembodied pain shows only that such a pain could be disembodied, not that my pain is actually distinct from my body. But we can sidestep this objection by focusing, in the thought experiment, on the idea that this very

pain could be disembodied.

4. Of course, empirical evidence can tell us that a certain scenario is possible. If we observed that pain occurred in the absence of C-fiber stimulation, we would of course conclude that this was possible. So it might seem that this type of empirical observation could support dualism. However, even this observation would not settle the issue. For the physicalist will simply take this as evidence that we must look elsewhere to find the physical state identical to pain. Unless we have empirical evidence of a pain that is unaccompanied by any physical seems highly physicalist can always hold out for the discovery of a physical state that does perfectly correlate with pain. I will assume, for the sake of argument, that there is a physical state that perfectly correlates with pain, and I will follow standard practice in speaking as if C-fiber stimulation is this state.

5. This means that it applies both to identities like "pain = C-fiber stimulation" and to the claim that every particular pain is identical to some physical state or other. That is, it applies to both type-identity and token-identity versions of physicalism. (These versions were distinguished in note 3.)

6. In his version of the argument, Descartes doesn't distinguish pains from thoughts more generally.

7. David Papineau proposes that we understand the physical as "the inanimate." See Papineau, "Thinking about Consciousness. Oxford University Press, 2002. Barbara Montero proposes that we understand it as "the nonmental." See "The Body Problem," *Nods* 33 (1999), pp. 183-200.

8. This should be qualified a bit, for purely mental entities may share temporal features with sticks and stones, e.g., existing on a Tuesday. And of course they may share necessary features like "being such that $2 + 2 = 4$." So the issue is whether you can conceive of experiencing this very pain while sharing no contingent, nontemporal features with inanimate, nonmental objects.

9. Strictly speaking, our concept pain is sufficiently comprehensive only if we grasp both the essential features of pain and any features entailed by those essential features. The geometry student erred because he didn't grasp a property (the property expressed by the Pythagorean Theorem) entailed by the essential feature of a right triangle being a three-sided polygon with one angle equal to 90° .

10. Christopher Hill, *Sensations: A Defense of Type Materialism* (Cambridge: Cambridge University Press, 1991), p. 127.

11. You might mistakenly believe that you're in pain if a trusted friend tells you that you are, at a time when you are steadfastly refusing to introspect your own feelings. (This is certainly an odd case, however, and seems more plausible for emotional pain than for the kind of pinch we are concerned with.) Or you might be tricked into believing that you're in pain: In a (cruel) fraternity hazing ritual, blindfolded recruits are told that they will be burnt with a cigarette in a certain spot. Ice is then applied to the spot, yielding shock rather than pain. Still, for a moment the victims react as if they were in pain, and they seem to believe that they are undergoing pain. (An alternative interpretation is that the recruits are in pain, but

the pain has a curious origin: It is produced by the expectation of pain.)

12. The charge that epiphenomenalism is "repugnant" was made by David Lewis in "What Experience Teaches." This article appeared in W. Lycan, ed., *Mind and Cognition* (Oxford: Blackwell Publishing, 1990), pp. 499-519.

13. Lewis, "Mad Pain and Martian Pain," in N. Block, ed., *Readings in the Philosophy of*

Psychology, Vol. 1. (Harvard University Press, 1980), pp. 216-222.

14. The idea that non-reductive physicalism faces the problem of epiphenomenalism was made by Jaegwon Kim. See "The Nonreductivist's Troubles with Mental Causation," reprinted as Chapter 17 of Kim's book *Supervenience and Mind* (Cambridge: Cambridge University Press, 1993).

15. Russell, "What Is the Soul?" from his book *In Praise of Idleness and Other Essays* (NY: W. W. Norton, 1935).

CAN NON-HUMANS THINK?

PERSONAL IDENTITY AND THE SURVIVAL OF DEATH

The Prince and the Cobbler

JOHN LOCKE

From John Locke, *An Essay Concerning Human Understanding*, Book II, Chapter 27, "Of Ideas of Identity and Diversity." First published in 1690.

... If the identity of soul alone makes the same man, and there be nothing in the nature of matter why the same individual spirit may not be united to different bodies, it will be possible that those men, living in distant ages, and of different tempers, may have been the same man: which way of speaking must be from a very strange use of the word man, applied to an idea out of which body and shape are exclude....

An animal is a living organized body; and consequently the same animal, as we have observed, is the same continued life communicated to different particles of matter, as they happen successively to be united to that organized living body. And whatever is talked of other definitions, ingenious observation puts it past doubt, that the idea in our minds, of which the sound "man" in our mouths is the sign, is nothing else but of an animal of such a certain from....

I presume it is not the idea of a thinking or rational being alone that makes the idea of a man in most people's sense: but of a body, so and so shaped, joined to it; and if that be the idea of a man, the same successive body not shifted all at once, must, as well as the same immaterial spirit, go to the making of the same man.

This being premised, to find wherein personal identity consists, we must consider what person stands for;—which, I think, is a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places; which it does only by that consciousness which is inseparable from thinking, and, as it seems to me, essential to it: it being impossible for any one to perceive without perceiving that he does perceive. When we see, hear, smell, taste, feel, meditate, or will anything, we know that we do so. Thus it is always as to our present sensations and perceptions: and by this every one is to himself

that which he calls self:-it not being considered, in this case, whether the same self be continued in the same or divers substances. For, since consciousness always accompanies thinking, and it is that which makes every one to be what he calls self, and thereby distinguishes himself from all other thinking things, in this alone consists personal identity, i.e. the sameness of a rational being: and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person; it is the same self now it was then; and it is by the same self with this present one that now reflects on it, that that action was done.

But it is further inquired, whether it be the same identical substance. This few would think they had reason to doubt of, if these perceptions, with their consciousness, always remained present in the mind, whereby the same thinking thing would be always consciously present, and, as would be thought, evidently the same to itself. But that which seems to make the difficulty is this, that this consciousness being interrupted always by forgetfulness, there being no moment of our lives wherein we have the whole train of all our past actions before our eyes in one view,

but even the best memories losing the sight of one part whilst they are viewing another; and we sometimes, and that the greatest part of our lives, not reflecting on our past selves, being intent on our present thoughts, and in sound sleep having no thoughts at all, or at least none with that consciousness which remarks our waking thoughts,-I say, in all these cases, our consciousness being interrupted, and we losing the sight of our past selves, doubts are raised whether we are the same thinking thing, i.e. the same substance or no. Which, however reasonable or unreasonable, concerns not personal identity at all. The question being what makes the same person; and not whether it be the same identical substance, which always thinks in the same person, which, in the case, matters not at all: different substances, by the same consciousness (where they do partake in it) being united into one person, as well as different bodies by the same life are united into one animal, whose identity is preserved in that change of substances by the unity of one continued life. For, it being the same consciousness that makes a man be himself to himself, personal identity depends on that only, whether it be annexed solely to one individual substance, or can be continued in a succession of several substances. For as far any intelligent being can repeat the idea of any past action with the same consciousness it had of it at first, and with the same consciousness it has of any present action; so far it is the same personal self. For it is by the consciousness it has of its present thoughts and actions, that it is self to itself now, and so will be the same self, as far as the same consciousness can extend to actions past or to come; and would be by distance of time, or change of substance, no more two persons, than a man be two men by wearing other clothes today than he did yesterday, with a long or a short sleep between: the same consciousness uniting those distant actions in the same person, whatever substances contributed to their production.

That this is so, we have some kind of evidence in our very bodies, all whose particles, whilst vitally united to this same thinking conscious self, so that we feel when they are touched, and are affected by, and conscious of good or harm that happens to them, are a part of ourselves; i.e. of our thinking conscious self. Thus, the limbs of his body are to every one a part of himself; he sympathizes and is concerned for them. Cut off a hand, and thereby separate it from that consciousness he had of its heat, cold, and other affections, and it is then no longer a part of that which is himself, any more than the remotest part of matter. Thus, we see the substance whereof personal self consisted at one time may be varied at another, without the change of personal identity; there being no question about the same person, though the limbs which but now were a part of it, be cut off...

And thus may we be able, without any difficulty, to conceive the same person at the resurrection, though in a body not exactly in make or parts the same which he had here,-the same consciousness going along with the soul that inhabits it. But yet the soul alone, in the change of bodies, would scarce to any one but to him that makes the soul the man, be enough to make the same man. For should the soul of a prince, carrying with it the consciousness of the prince's past life, enter and inform the body of a cobbler, as soon as deserted by his own soul, every one sees he would be the same person with the prince, accountable only for the prince's actions: but who would say it was the same man? The body too goes to the making the man, and would, I guess, to everybody determine the man in this case, wherein the soul, with all its princely thoughts about it, would not make another man: but he would be the same cobbler to every one besides himself. I know that, in the ordinary way of speaking, the same person, and the same man, stand for one and the same thing. And indeed every one will always have a liberty to speak as he pleases, and to apply what articulate sounds to what ideas he thinks fit, and change them as often as he pleases. But yet, when we will inquire what makes the same spirit, man, or person, we must fix the ideas of spirit, man, or person in our minds; and having resolved with ourselves what we mean by them, it will not be hard to determine in either of them, or the like, when it is the same, and when not.

But though the immaterial substance or soul does not alone, wherever it be, and in whatsoever state, make the same man; yet it is plain, consciousness, as far as ever it can be extended-should it be to ages past-unites existences and actions very remote in time into the same person, as well as it does the existences and actions of the immediately preceding moment: so that whatever has the consciousness of present and past actions, is the same person to whom they both belong. Had I the same consciousness that I saw the ark and Noah's flood, as that I saw an overflowing of the Thames last winter, or as that I write now, I could no more doubt that I who write this now, that saw the Thames overflowed last winter, and that viewed the flood at the general deluge, was the same self,-place that self in what substance you please-than that I who write this am the same myself now whilst I write (whether I consist of all the same substance, material or immaterial, or no) that I was yesterday. For as to this point of being the same self, it matters not whether this present self be made up of the same or other substances-I being as much concerned, and as justly accountable for any action that was done a thousand years since, appropriated to me now by this selfconsciousness, as I am for what I did the last moment ...

But yet possibly it will still be objected, Suppose I wholly lose the memory of some parts of my life, beyond a possibility of retrieving them, so that perhaps I shall never be conscious of them again; yet am I not the same person that did those actions, had those thoughts that I once was conscious of, though I have now forgot them? To which I answer, that we must here take notice what the word I is applied to; which, in this case, is the man only. And the same man being presumed to be the same person, I is easily here supposed to stand also for the same person. But if it be possible for the same man to have distinct incommunicable consciousness at different times, it is past doubt the same man would at different times make different persons; which, we see, is the sense of mankind in the solemnest declaration of their opinions, human laws not punishing the mad man for the sober man's actions, nor the sober man for what the mad man making them two persons: which is somewhat explained by our way of speaking in English when we say such an one is "not himself," or is "beside himself"; in which phrases it is insinuated, as if those who now, or at least first used them, thought that self was changed; the selfsame person was no longer in that man.

But yet it is hard to conceive that Socrates, the same individual man, should be two

persons. To help us a little in this, we must consider what is meant by Socrates, or the same individual man.

First, it must be either the same individual, immaterial, thinking substance; in short, the same numerical soul, and nothing else.

Secondly, or the same animal, without any regard to an immaterial soul.

Thirdly, or the same immaterial spirit united to the same animal.

Now, take which of these suppositions you please, it is impossible to make personal identity to consist in anything but consciousness; or reach any further than that does.

Of Mr. Locke's

Account of Our Personal Identity

THOMAS REID

From Thomas Reid, *Essays on the Intellectual Powers of Man*, Essay III, Chapter 6. First published in 1785.

In a long chapter upon Identity and Diversity, Mr. Locke has made many ingenious and just observations, and some which I think cannot be defended. I shall only take notice of the account he gives of our own personal identity. His doctrine upon this subject has been censured by Bishop Butler, in a short essay subjoined to his *Analogy*, with whose sentiments I perfectly agree.

Identity, as was observed, supposes the continued existence of the being of which it is affirmed, and therefore can be applied only to things which have a continued existence. While any being continues to exist, it is the same being; but two beings which have a different beginning or a different ending of their existence cannot possibly be the same. To this, I think, Mr. Locke agrees.

He observes, very justly, that, to know what is meant by the same person, we must consider what the word person stands for; and he defines a person to be an intelligent being, endowed with reason and with consciousness, which last he thinks inseparable from thought.

From this definition of a person, it must necessarily follow, that, while the intelligent being continues to exist and to be intelligent, it must be the same person. To say that the intelligent being is the person, and yet that the person ceases to exist while the intelligent being continues, or that the person continues while the intelligent being ceases to exist, is to my apprehension a manifest contradiction.

then two or twenty intelligent beings may be the same person. And if the intelligent being may lose the consciousness of the actions done by him, which surely is possible, then he is not person that did those actions; so that one intelligent being may be two or twenty different persons, if he shall so often lose the consciousness of his former actions. One would think that the definition of a person should perfectly ascertain the nature of personal identity, or wherein it consists, though it might still be a question how we come to know and be assured of our personal identity.

Mr. Locke tells us, however, "that personal identity, that is, the sameness of a rational being, consists in consciousness alone, and, as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person. So that whatever has the consciousness of present and past actions is the same person to whom they belong."

This doctrine has some strange consequences, which the author was aware of. Such as,

that if the same consciousness can be transferred from one intelligent being to another, which he thinks we cannot show to be impossible,

There is another consequence of this doctrine, which follows no less necessarily, though Mr. Locke probably did not see it. It is, that a man be, and at the same time not be, the person that did a particular action.

Suppose a brave officer to have been flogged when a boy at school for robbing an orchard, to have taken a standard from the enemy in his first campaign, and to have been made a general in advanced life; suppose, also, which must be admitted to be possible, that, when he took the standard, he was conscious of his having been flogged at school, and that, when made a general, he was conscious of his taking the standard, but had absolutely lost the consciousness of his flogging.

These things being supposed, it follows, from Mr. Locke's doctrine, that he who was flogged at school is the same person who took the standard, and that he who took the standard is the same person who was made a general. Whence it follows, if there be any truth in logic, that the general is the same person with him who was flogged at school. But the general's consciousness does not reach so far back as his flogging; therefore, according to Mr. Locke's doctrine, he is not the person who was flogged. Therefore the general is, and at the same time is not, the same person with him who was flogged at school.

Leaving the consequences of this doctrine to those who have leisure to trace them, we may observe, with regard to the doctrine itself:

First, that Mr. Locke attributes to consciousness the conviction we have of our past actions, as if a man may now be conscious of what he did twenty years ago. It is impossible to understand the meaning of this, unless by consciousness be meant memory, the only faculty by which we have an immediate knowledge of our past actions.

Sometimes, in popular discourse, a man says he is conscious that he did such a thing, meaning that he distinctly remembers that he did it. It is unnecessary, in common discourse, to fix accurately the limits between consciousness and memory. This was formerly shown to be the case with regard to sense and memory: and therefore distinct remembrance is sometimes called sense, sometimes consciousness, without any inconvenience.

But this ought to be avoided in philosophy, otherwise we confound the different powers of the mind, and ascribe to one what really belongs to another. If a man can be conscious of what he did twenty years or twenty minutes ago, there is no use for memory, nor ought we allow that there is any such faculty. The faculties of consciousness and memory are chiefly distinguished by this, that the first is an immediate knowledge of the present, the second an immediate knowledge of the past.

When, therefore, Mr. Locke's notion of personal identity is properly expressed, it is, that personal identity consists in distinct remembrance; for, even in the popular sense, to say that I conscious of a past action means nothing else than that I distinctly remember that I did it.

Secondly, it may be observed, that, in this doctrine, not only is consciousness confounded with memory, but, which is still more strange, personal identity is confounded with the evidence which we have of our personal identity.

It is very true, that my remembrance that I did such a thing is the evidence I have that I am the identical person who did it. And this, I am apt to think, Mr. Locke meant. But to say that my remembrance that I did such a thing, or my consciousness, makes me the person who did it, is, in my apprehension, an absurdity too gross to be entertained by any man who attends to the meaning of it; for it is to attribute to memory or consciousness a strange magical power of

producing its object, though that object must have existed before the memory or consciousness which produced it.

Consciousness is the testimony of one faculty; memory is the testimony of another faculty; and to say that the testimony is the cause of the thing testified, this surely is absurd, if any thing be, and could not have been said by Mr. Locke, if he had not confounded the testimony with the thing testified.

When a horse that was stolen is found and claimed by the owner, the only evidence he can have, or that a judge or witnesses can have, that this is the very identical horse which was his property, is similitude. But would it not be ridiculous from this to infer that the identity of a horse consists in similitude only? The only evidence I have that I am the identical person who did such actions is, that I remember distinctly I did them; or, as Mr. Locke expresses it, I am conscious I did them. To infer from this, that personal identity consists in consciousness, is an argument which, if it had any force, would prove the identity of a stolen horse to consist solely in similitude.

Thirdly, is it not strange that the sameness or identity of a person should consist in a thing which is continually changing, and is not any two minutes the same?

Our consciousness, our memory, and every operation of the mind, are still flowing like the water of a river, or like time itself. The consciousness I have this moment can no more be the same consciousness I had last moment, than this moment can be the last moment. Identity can only be affirmed of things which have a continued existence. Consciousness, and every kind of thought, are transient and momentary, and have no continued existence; and, therefore, if personal identity consisted in consciousness, it would certainly follow, that no man is the same person any two moments of his life; and as the right and justice of reward and punishment are founded on personal identity, no man could be responsible for his actions.

But though I take this to be the unavoidable consequence of Mr. Locke's doctrine concerning personal identity, and though some persons may have liked the doctrine the better on this account, I am far from imputing any thing of this kind to Mr. Locke. He was too good a man not to have rejected with abhorrence a doctrine which he believed to draw this consequence after it.

Fourthly, there are many expressions used by Mr. Locke, in speaking of personal identity, which to me are altogether unintelligible, unless we suppose that he confounded that sameness or identity which we ascribe to an individual with the identity which, in common discourse, is often ascribed to many individuals of the same species.

When we say that pain and pleasure, consciousness and memory, are the same in all men, this sameness can only mean similarity, or sameness of kind. That the pain of one man can be the same individual pain with that of another man is no less impossible, than that one man should be another man: the pain felt by me yesterday can no more be the pain I felt to-day, than yesterday can be this day; and the same thing may be said of every passion and of every operation of the mind. The same kind or species of operation may be in different men, or in the same man at different times; but it is impossible that the same individual operation should be in different men, or in the same man at different times.

When Mr. Locke, therefore, speaks of "the same consciousness being continued through a succession of different substances"; when he speaks of "repeating the idea of a past action, with the same consciousness we had of it at the first," and of "the same consciousness extending to actions past and to come"; these expressions are to me unintelligible, unless he means not the same individual consciousness, but a consciousness that is similar, or of the same kind.

If our personal identity consists in consciousness, as this consciousness cannot be the same individually any two moments, but only of the same kind, it would follow, that we are not for any two moments the same individual persons, but the same kind of persons.

As our consciousness sometimes ceases to exist, as in sound sleep, our personal identity must cease with it. Mr. Locke allows, that the same thing cannot have two beginnings of existence, so that our identity would be irrecoverably gone every time we ceased to think, if it was but for a moment.

The Self

DAVID HUME

From David Hume, *A Treatise of Human Nature*. First published in England in 1738.

There are some philosophers, who imagine we are every moment intimately conscious of what we call our Self; that we feel its existence and its continuance in existence; and are certain, beyond the evidence of a demonstration, both of its perfect identity and simplicity... .

Unluckily all these positive assertions are contrary to that very experience, which is pleaded for them, nor have we any idea of self, after the manner it is here explained. For from what impression could this idea be derived? This question 'tis impossible to answer without a manifest contradiction and absurdity; and yet 'tis a question, which must necessarily be answered, if we would have the idea of self pass for clear and intelligible. It must be some one impression, that gives rise to every real idea. But self or person is not any one impression, but that to which our several impressions and ideas are supposed to have a reference. If any impression gives rise to the idea of self, that impression must continue invariably the same, through the whole course of our lives; since self is supposed to exist after that manner. But there is no impression constant and invariable. Pain and pleasure, grief and joy, passions and sensations succeed each other, and never all exist at the same time. It cannot, therefore, be from any of these impressions, or from any other, that the idea of self is derived; and consequently there is no such idea.

But farther, what must become of all our particular perceptions upon this hypothesis? All these are different, and distinguishable, and separable from each other, and may be separately considered, and may exist separately, and have no need of any thing to support their existence. After what manner, therefore, do they belong to self; and how are they connected with it? For my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception, and never can observe any thing but the perception. When my perceptions are removed for any time, as by sound sleep; so long am I insensible of myself, and may truly be said not to exist. And were all my perceptions removed by death, and could I neither think, nor feel, nor see, nor love, nor hate after the dissolution of my body, I should be entirely annihilated, nor do I conceive what is farther requisite to make me a perfect nonentity. If any one upon serious and unprejudiced reflection, thinks he has a different notion of himself, I must confess I can reason no longer with him. All I can allow him is, that he may be in the right as well as I, and that we are essentially different in this particular. He may, perhaps, perceive something simple and continued, which he calls himself though I am certain there is no such principle in me.

different; whatever natural propensity we may have to imagine that simplicity and identity. The comparison of the theatre must not mislead us. They are the successive perceptions only, that constitute the mind; nor have we the most distant notion of the place, where these scenes are represented, or of the materials, of which it is composed. But setting aside some

metaphysicians of this kind, I may venture to affirm of the rest of mankind, that they are nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement. Our eyes cannot turn in their sockets without varying our perceptions. Our thought is still more variable than our sight; and all our other senses and faculties contribute to this change; nor is there any single power of the soul, which remains unalterably the same, perhaps for one moment. The mind is a kind of theatre, where several perceptions successively make their appearance; pass, re-pass, glide away, and mingle in an infinite variety of postures and situations. There is properly no simplicity in it at one time, nor identity in

What then gives us so great a propensity to ascribe an identity to these successive perceptions, and to suppose ourselves possessed of an invariable and uninterrupted existence through the whole course of our lives? ...

We have a distinct idea of an object, that remains invariable and uninterrupted through a supposed variation of time; and this idea we call that of identity or sameness. We have also a distinct idea of several different objects existing in succession, and connected together by a close relation; and this to an accurate view affords as perfect a notion of diversity, as if there was no manner of relation among the objects. But though these two ideas of identity, and a succession of related objects be in themselves perfectly distinct, and even contrary, yet 'tis certain, that in our common way of thinking they are generally confounded with each other. That action of the imagination, by which we consider the uninterrupted and invariable object, and that by which we reflect on the succession of related objects, are almost the same to the feeling, nor is there much more effort of thought required in the latter case than in the former. The relation facilitates the transition of the mind from one object to another, and renders its passage as smooth as if it contemplated one continued object. This resemblance is the cause of the confusion and mistake, and makes us substitute the notion of identity, instead of that of related objects....

Thus we feign the continued existence of the perceptions of our senses, to remove the interruption; and run into the notion of a soul, and self, and substance, to disguise the variation. But we may farther observe, that where we do not give rise to such a fiction, our propensity to confound identity with relation is so great, that we are apt to imagine something unknown and mysterious, connecting the parts, beside their relation; and this I take to be the case with regard to the identity we ascribe to plants and vegetables. And even when this does not take place, we still feel a propensity to confound these ideas, though we are not able fully to satisfy ourselves in that particular, nor find any thing invariable and uninterrupted to justify our notion of identity.

Thus the controversy concerning identity is not merely a dispute of words. For when we attribute identity, in an improper sense, to variable or interrupted objects, our mistake is not confined to the expression, but is commonly attended with a fiction, either of something invariable and uninterrupted, or of something mysterious and inexplicable, or at least with a propensity to such fictions. What will suffice to prove this hypothesis to the satisfaction of every fair enquirer, is to show from daily experience and observation, that the objects, which are variable or interrupted, and yet are supposed to continue the same, are such only as consist of a succession of parts, connected together by resemblance, contiguity, or causation....

A ship, of which a considerable part has been changed by frequent reparations, is still considered as the same: nor does the difference of the materials hinder us from ascribing an identity to it. The common end, in which the parts conspire, is the same under all their variations, and affords an easy transition of the imagination from one situation of the body to another....

Though every one must allow, that in a very few years both vegetables and animals endure a total change, yet we still attribute identity to them, while their form, size, and substance are entirely altered. An oak, that grows from a small plant to a large tree, is still the same oak; though there be not one particle of matter, or figure of its parts the same. An infant becomes a man, and is sometimes fat, sometimes lean, without any change in his identity.... A man, who hears a noise, that is frequently interrupted and renewed, says, it is still the same noise; though 'tis evident the sounds have only a specific identity or resemblance, and there is nothing numerically the same, but the cause, which produced them. In like manner it may be said without breach of the propriety of language, that such a church, which was formerly of brick, fell to ruin, and that the parish rebuilt the same church of freestone, and according to modern architecture. Here neither the form nor materials are the same, nor is there any thing common to the two objects, but their relation to the inhabitants of the parish; and yet this alone is sufficient to make us denominate them the same....

From thence it evidently follows, that identity is nothing really belonging to these different perceptions, and uniting them together; but is merely a quality, which we attribute to them, because of the union of their ideas in the imagination, when we reflect upon them....

The only question, therefore, which remains, is, by what relations this uninterrupted progress of our thought is produced, when we consider the successive existence of a mind or thinking person. And here 'tis evident we must confine ourselves to resemblance and causation.... Also, as memory alone acquaints us with the continuance and extent of this succession of perceptions, 'tis to be considered, upon that account chiefly, as the source of personal identity. Had we no memory, we never should have any notion of causation, nor consequently of that chain of causes and effects, which constitute our self or person.

A Dialogue on Personal Identity and Immortality

JOHN PERRY

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(This is a record of conversations of Gretchen Weirob, a teacher of philosophy at a small midwestern college, and several of her friends. They took place in her hospital room, the three nights before she died from injuries sustained in a motorcycle accident. Sam Miller is a chaplain and a longtime friend of Weirob's; Dave Cohen is a former student of hers.)

THE FIRST NIGHT

Cohen: I can hardly believe what you say, Gretchen. You are lucid and do not appear to be in great pain. And yet you say things are hopeless?

Weirob: These devices can keep me alive for another day or two at most. Some of my vital organs have been injured beyond anything the doctors know how to repair, apart from certain rather radical measures I have rejected. I am not in much pain. But as I understand it that is not a particularly good sign. My brain was uninjured and I guess that's why I am as lucid as I ever am. The whole situation is a bit depressing, I fear. But here's Sam Miller. Perhaps he will know how to cheer me up.

Miller: Good evening Gretchen. Hello, Dave. I guess there's not much point in beating around the bush, Gretchen; the medics tell me you're a goner. Is there anything I can do to help?

Weirob: Crimenentley, Sam! You deal with the dying every day. Don't you have anything more comforting to say than "Sorry to hear you're a goner?"

Miller: Well to tell you the truth, I'm a little at a loss for what to say to you. Most people I deal with are believers like I am. We talk of the prospects for survival. I give assurance that God, who is just and merciful, would not permit such a travesty as that our short life on this earth should be the end of things. But you and I have talked about religious and philosophical issues for years. I have never been able to find in you the least inclination to believe in God; indeed, it's a rare day when you are sure that your friends have minds, or that you can see your own hand in front of your face, or that there is any reason to believe that the sun will rise tomorrow. How can I hope to comfort you with the prospect of life after death, when I know you will regard it as having no probability whatsoever?

Weirob: I would not require so much to be comforted, Sam. Even the possibility of something quite improbable can be comforting, in certain situations. When we used to play tennis, I beat you no more than one time in twenty. But this was enough to establish the possibility of beating you on any given occasion, and by focusing merely on the possibility, I remained eager to play. Entombed in a secure prison, having thought our situation quite hopeless, we might find unutterable joy in the information that there was, after all, a possibility of escape, however slim the chances of actually succeeding. Hope provides comfort, and hope does not always require probability. But we must believe that what we hope for is at least possible. So I will set an easier task for you. Simply persuade me that my survival, after the death of this body, is possible, and I promise to be comforted. Whether you succeed or not, your attempts will be a diversion, for you know I like to talk philosophy more than anything else.

Miller: But what is possibility, if not reasonable probability?

Weirob: I do not mean possible in the sense of likely, or even in the sense of conforming to the known laws of physics or biology. I mean possible only in the weakest sense, of being conceivable, given the unavoidable facts. Within the next couple of days, this body will die. It will be buried, and it will rot away. I ask that, given these facts, you explain to me how it even makes sense to talk of me continuing to exist. Just explain to me what it is I am to imagine, when I imagine surviving, that is consistent with these facts, and I shall be comforted.

Miller: But then what is there to do? There are many conceptions of immortality, of survival past the grave, which all seem to make good sense. Surely not the possibility, but only the probability, can be doubted. Take your choice! Christians believe in life, with a body, in some Hereafter-the details vary, of course, from sect to sect. There is the Greek idea of the body as a prison, from which we escape at death-so we have continued life without a body. Then there are conceptions, in which we, so to speak, merge with the flow of being ...

Weirob: I must cut short your lesson in comparative religion. Survival means surviving, no more, no less. I have no doubts that I shall merge with being; plants will take roots in my remains, and the chemicals that I am will continue to make their contribution to life. I am enough of an ecologist to be comforted. But survival, if it is anything, must offer comforts of a different sort, the comforts of anticipation. Survival means that tomorrow, or sometime in the future, there will be someone who will experience, who will see and touch and smell-or at least, at the very least, think and reason and remember. And this person will be me. This person will be related to me in such a way that it is correct for me to anticipate, to look forward to, those future experiences. And I am related to her in such a way that it will be right for her to remember what I

have thought and done, to feel remorse for what I have done wrong,

and pride in what I have done right. And the only relation that supports anticipation and memory in this way, is simply identity. For it is never correct to anticipate, as happening to oneself, what will happen to someone else, is it? Or to remember, as one's own thoughts and deeds, what someone else did? So don't give me merger with being, or some such nonsense. Give me identity, or let's talk about baseball or I'm sorry to get so emotional. I just react so strongly when words which mean one thing are used for another-when one talks about survival, but does not mean to say that the same person will continue to exist. It's such a sham!

Miller: I'm sorry. I was just trying to stay in touch with the times, if you want to know the truth, for when I read modern theology or talk to my students who have studied eastern religions, the notion of survival as simply continued existence of the same person seems out of date. Merger with Being! Merger with Being! That's all I hear. My own beliefs are quite simple, if somewhat vague. I think you will live again with or without a body, I don't know-I draw comfort from my belief that you and I will be together again, after I also die. We will communicate, somehow. We will continue to grow spiritually. That's what I believe, as surely as I believe that I am sitting here. For I don't know how God could be excused, if this small sample of life is all that we are allotted; I don't know why he should have created us, if this few years of toil and torment are the end of it ...

Weirob: Remember our deal, Sam. You don't have to convince me that survival is probable, for we both agree you would not get to first base. You have only to convince me that it is possible. The only condition is that it be real survival we are talking about, not some up-to-date ersatz survival, which simply amounts to what any ordinary person would call ceasing totally to exist.

Miller: I guess I just miss the problem then. Of course it's possible. You just continue to exist, after your body dies. What's to be defended or explained? You want details? OK. Two people meet a thousand years from now, in a place that may or may not be part of this physical universe. I am one and you are the other. So you must have survived. Surely you can imagine that. What else is there to say?

Weirob: But in a few days I will quit breathing, I will be put into a coffin, I will be buried. And in a few months or a few years I will be reduced to so much humus. That I take it is obvious, is given. How then can you say that I am one of these persons a thousand years from now?

Suppose I took this box of kleenex and lit fire to it. It is reduced to ashes and I smash the ashes and flush them down the john. Then I say to you, go home and on the shelf will be that very box of kleenex. It has survived! Wouldn't that be absurd? What sense could you make of it? And yet that is just what you say to me. I will rot away. And then, a thousand years later, there I will be. What sense does that make?

Miller: There could be an identical box of kleenex at your home, one just like it in every respect. And, in this sense, there is no difficulty in there being someone identical to you in the Hereafter, though your body has rotted away.

Weirob: You are playing with words again. There could be an exactly similar box of kleenex on my shelf. We sometimes use "identical" to mean "exactly similar" as when we talk of "identical twins." But I am using "identical," in a way in which identity is the condition of memory and correct anticipation. If I am told that tomorrow though I will be dead, someone else that looks and sounds and thinks just like me will be alive, would that be comforting? Could I correctly anticipate having her experiences? Would it make sense for me to fear her pains and

look forward to her pleasures? Would it be right for her to feel remorse at the harsh way I am treating you? Of course not. Similarity, however exact, is not identity. I use identity to mean there is but one thing. If I am to survive, there must be one person who is here in this bed now, and who is talking to someone in your Hereafter ten or a thousand years from now. After all, what comfort could there be in the notion of a Heavenly imposter, walking around getting credit for the few good things I have done?

Miller: I'm sorry. I see that I was simply confused. Here is what I should have said. If you were merely a live human body-as the kleenex box is merely cardboard and glue in a certain arrangement-then the death of your body would be the end of you. But surely you are more than that, fundamentally more than that. What is fundamentally you is not your body, but your soul or self or mind.

Weirob: Do you mean these words, "soul," "self," or "mind" to come to the same thing?

Miller: I have heard fine distinctions made, but usually cannot follow them. They are the nonphysical, nonmaterial, aspects of you. They are your consciousness. It is this that I get at with these words, and I am not clever enough to attempt any further distinction.

Weirob: Consciousness? I am conscious, for a while yet. I see, I hear, I think, I remember. But "to be conscious"-that is a verb. What is the subject of the verb, the thing which is conscious? Isn't it just this body, the same object that is overweight, injured, and lying in bed? And which will be buried, and not be conscious in a day or a week at the most?

Miller: As you are a philosopher, I would expect you to be less muddled about these issues. Did Descartes not draw a clear distinction between the body and the mind, between that which is overweight and that which is conscious? Your mind or soul is immaterial, lodged while you are on earth in your body. They are intimately related, but not identical. Now clearly, what concerns us in survival is your mind or soul. It is this which must be identical between the person before me now, and the one I expect to see in a thousand years in heaven.

Weirob: So I am not really this body, but a soul or mind or spirit? And this soul cannot be seen or felt or touched or smelt? That is implied, I take it, by the fact that it is immaterial?

Miller: That's right. Your soul sees and smells, but cannot be seen or smelt.

Weirob: Let me see if I understand you. You would admit that I am the very same person with whom you ate lunch last week at Dorsey's?

Miller: Of course you are.

Weirob: Now when you say I am the same person, if I understand you, that is not a remark about this body you see and could touch and I fear can smell. Rather it is a remark about a soul, which you cannot see or touch or smell. The fact that the same body was across the booth from you at Dorsey's as is now lying in front of you on the bed-that would not mean that the same person was present on both occasions, if the same soul were not. And if, through some strange turn of events, the same soul were present on both occasions, but lodged in different bodies, then it would be the same person. Is that right?

Miller: You have understood me perfectly. But surely, you understood all of this before!

Weirob: But wait. I can repeat it, but I'm not sure I understand it. If you cannot see or touch or in any way perceive my soul, what makes you think the one you are confronted with now is the very same soul you were confronted with at Dorsey's?

Miller: But I just explained. To say it is the same soul and to say it is the same person, are the same. And, of course, you are the same person you were before. Who else would you be if not yourself? You were Gretchen Weirob, and you are Gretchen Weirob.

Weirob: But how do you know you are talking to Gretchen Weirob at all, and not

someone else, say Barbara Walters or even Mark Spitz!

Miller: Well, it's just obvious. I can see who I am talking to.

Weirob: But all you can see is my body. You can see, perhaps, that the same body is before you now that was before you last week at Dorsey's. But you have just said that Gretchen Weirob is not a body but a soul. In judging that the same person is before you now as was before you then, you must be making a judgement about you said, cannot be seen or touched or smelled or tasted. And so, I repeat, how do you know?

Miller: Well, I can see that it is the same body before me now that was across the table at Dorsey's. And I know that the same soul is connected with the body as was connected with it before. That's how I know it's you. I see no difficulty in the matter.

Weirob: You reason on the principle, "same body, same self"

Miller: Yes.

Weirob: And would you reason conversely also? If there were in this bed Barbara Walters' is, the body you see every night on

the you infer that it was not me, Gretchen Weirob, in the bed?

Miller: Of course I would. How would you have come by Barbara Walters' body?

Weirob: But then merely extend this principle to Heaven, and you will see that your conception of survival is without sense. Surely this very body, which will be buried and, as I must so often repeat, rot away, will not be in your Hereafter. Different body, different person. Or do you claim that a body can rot away on earth, and then still wind up somewhere else? Must I bring up the kleenex box again?

Miller: No, I do not claim that. But I also do not extend a principle, found reliable on earth, to such a different situation as is represented by the Hereafter. That a correlation between bodies and souls has been found on earth, does not make it inconceivable or impossible that they should separate. Principles found to work in one circumstance may not be assumed to work in vastly altered circumstances. January and snow go together here, and one would be a fool to expect otherwise. But the principle does not apply in California.

Weirob: So the principle, "same body, same soul," is a well-confirmed regularity, not something you know "a priori."

Miller: By "a priori" you philosophers mean something which can be known without observing what actually goes on in the world, as I can know that two plus two equals four just by thinking about numbers, and that no bachelors are married just by thinking about the meaning of "bachelor"?

Weirob: Yes.

Miller: Then you are right. If it was part of the meaning of "same body" that wherever we have the same body, we have the same soul, it would have to obtain universally, in Heaven as well as on earth. But I just claim it is a generalization we know by observation on earth, and it need not automatically extend to Heaven.

Weirob: But where do you get this principle? It simply amounts to a correlation between being confronted with the same body and being confronted with the same soul. To establish such a correlation in the first place, surely one must have some other means of judging sameness of soul. You do not have such a means; your principle is without foundation; either you really do not know the person before you now is Gretchen Weirob, the very same person you lunched with at Dorsey's, or what you do know has nothing to do with sameness of some immaterial soul.

Miller: Hold on, hold on. You know I can't follow you when you start spitting out arguments like that. Now what is this terrible fallacy I'm supposed to have committed?

Weirob: I'm sorry. I get carried away. Here, have one of my chocolates by way of a peace offering.

Miller: Very tasty, thank you.

Weirob: Now why did you choose that one?

Miller: Because it had a certain swirl on the top which shows that it is a caramel.

Weirob: That is, a certain sort of swirl is correlated with a certain type of filling-the swirls with caramel, the rosettes with orange, and so forth.

Miller: Yes. When you put it that way, I see an analogy. Just as I judged that the filling would be the same in this piece as in the last piece that I ate with such a swirl, so I judge that the soul with which I am conversing is the same as the last soul with which I conversed when sitting across from that body. We see the outer wrapping and infer to what is inside.

Weirob: But how did you come to realize that swirls of that sort and caramel insides were so associated?

Miller: Why from eating a great many of them over the years. Whenever I bit into a candy with that sort of swirl, it was filled with this sort of caramel.

Weirob: Could you have established the correlation had you never been allowed to bite into a candy and never seen what happened when someone else bit into one? You could have formed the hypothesis, "same swirl, same filling." But could you have ever established it?

Miller: It seems not.

Weirob: So your inference, in a particular case, to the identity of filling from the identity of swirl would be groundless?

Miller: Yes, it would. I think I see what is coming.

Weirob: I'm sure you do. Since you can never, so to speak, bite into my soul, can never see or touch it, you have no way of testing your hypothesis that sameness of body means sameness of self.

Miller: I daresay you are right. But now I'm a bit lost. What is supposed to follow from all of this?

Weirob: If identity of persons consisted in identity of immaterial unobservable souls as you claim, then judgements of personal identity of the sort we make every day whenever we greet a friend or avoid a pest are really judgements about such souls.

Miller: Right.

Weirob: But if such judgements were really about souls, they would all be groundless and without foundation. For we have no direct method of observing sameness of soul, and so and this is the point made by the candy example-can have no indirect method either.

Miller: That seems fair.

Weirob: But our judgements about persons are not all simply groundless and silly, so we must not be judging of immaterial souls after all.

Miller: Your reasoning has some force. But I suspect the problem lies in my defense of my position, and not the position itself. Look here. There is a way to test the hypothesis of a correlation after all. When I entered the room, I expected you to react just as you did. Argumentatively and skeptically. Had the person with this body reacted completely different perhaps I would have been forced to conclude it was not you. For example, had she complained about not being able to appear on the six o'clock news, and missing Harry Reasoner, and so forth, I might have eventually been persuaded it was Barbara Walters and not you. Similarity of psychological characteristics, a person's attitudes, beliefs, memories, prejudices, and the like, is observable. These are correlated with identity of body on the one side, and of course with

sameness of soul on the other. So the correlation between body and soul can be established after all by this intermediate link.

Weirob: And how do you know that?

Miller: Know what?

Weirob: That where we have sameness of psychological characteristics, we have sameness of soul.

Miller: Well now you are really being just silly. The soul or mind just is that which is responsible for one's character, memory, belief. These are aspects of or states of mind, just as one's height, weight, and appearance are aspects of the

Weirob: Let me grant, for the sake of argument, that belief, character, memory, and so forth are states of mind. That is, I suppose, I grant that what one thinks and feels is due to the state one's mind is in at that time. And I shall even grant that a mind is an immaterial thing though I harbor the gravest doubts that this is so. I do not see how it follows from that, that similarity of such traits requires, or is evidence to the slightest degree, for identity of the mind or soul.

Let me explain my point with an analogy. If we were to walk out of this room, down past the mill and out toward Wilbur, what would we see?

Miller: We would come to the Blue River, among other things.

Weirob: And how would you recognize the Blue River? I mean, of course if you left from here, you would scarcely expect to hit the Platte or Niobrara. But suppose you were actually lost, and came across the Blue River in your wandering, just at that point where an old dam partly blocks the flow. Couldn't you recognize it?

Miller: Yes, I'm sure as soon as I saw that part of the river I would again know where I was.

Weirob: And how would you recognize it?

Miller: Well, the turgid brownness of the water, the sluggish flow, the filth washed up on the banks, and such.

Weirob: In a word, the state of the water which makes up the river at the time you see it.

Miller: Right.

Weirob: If you saw blue clean water, with bass jumping, you would know it wasn't the Blue River.

Miller: Of course.

Weirob: So you expect, each time you see the Blue, to see the water, which makes it up, in similar states-not always exactly the same, for sometimes it's a little dirtier, but by and large, similar.

Miller: Yes, but what do you intend to make of this?

Weirob: Each time you see the Blue, it consists of different water. The water that was in it

a month ago may be in Tuttle Creek Reservoir, or in the Mississippi, or in the Gulf of Mexico by now. So the similarity of states of water, by which you judge the sameness of river, does not require identity of the water which is in those states at these various times.

Miller: And?

Weirob: And so just because you judge as to personal identity by reference to similarity of states of mind, it does not follow that the mind, or soul, is the same in each case. My point is this. For all you know, the immaterial soul which you think is lodged in my body might change from day to day, from hour to hour, from minute to minute, replaced each time by another soul

psychologically similar. You cannot see it or touch it, so how would you know?

Miller: Are you saying I don't really know who you are?

Weirob: Not at all. You are the one who says personal identity consists in sameness of this immaterial, unobservable, invisible, untouchable soul. I merely point out that if it did consist in that, you would have no idea who I am. Sameness of body would not necessarily mean sameness of person. Sameness of psychological characteristics would not necessarily mean sameness of person. I am saying that if you do know who I am then you are wrong that personal identity consists in sameness of immaterial soul.

Miller: I see. But wait. I believe my problem is that I simply forgot a main tenet of my theory. The correlation can be established in my own case. I know that my soul and my body are intimately and consistently found together. From this one case I can generalize, at least as concerns life in this world, that sameness of body is a reliable sign of sameness of soul. This leaves me free to regard it as intelligible, in the case of death, that the link between the particular soul and the particular body it has been joined with is broken.

Weirob: This would be quite an extrapolation, wouldn't it, from one case directly observed, to a couple of billion in which only the body is observed? For I take it that we are in the habit of assuming, for every man now on earth, as well as those who have already come and gone, that the principle "one body, one soul" is in effect.

Miller: This does not seem an insurmountable obstacle. Since there is nothing special about my case, I assume the arrangement I find in it applies universally, until given some reason to believe otherwise. And I never have been.

Weirob: Let's let that pass. I have another problem that is more serious. How is it that you know in your own case that there is a single soul which has been so consistently connected with your body?

Miller: Now you really cannot be serious, Gretchen. How can I doubt that I am the same person I was? Is there anything more clear and distinct, less susceptible to doubt? How do you expect me to prove anything to you, when you are capable of denying my own continued existence from second to second? Without knowledge of our own identity, everything we think and do would be senseless. How could I think if I did not suppose that the person who begins my thought is the one who completes it? When I act, do I not assume that the person who forms the intention is the very one who performs the action?

Weirob: But I grant you that a single person has been associated with your body since you were born. The question is whether one immaterial soul has been, or more precisely, whether you are in a position to know it. You believe that a judgement that one and the same person has had your body all these many years is a judgement that one and the same immaterial soul has been lodged in it. I say that such judgements concerning the soul are totally mysterious, and that if our knowledge of sameness of persons consisted in knowledge of sameness of immaterial soul, it too would be totally mysterious. To point out, as you do, that it is not, but perhaps the most secure knowledge we have, the foundation of all reason and action, is simply to make the point that it cannot consist of knowledge of identity of immaterial self.

Miller: You have simply asserted, and not established, that my judgement that a single soul has been lodged in my body these many years is mysterious.

Weirob: Well, consider these possibilities. One is that a single soul, one and the same, has been with this body I call mine since it was

born. The other is that one soul was associated with it until five years ago and then another, psychologically similar, inheriting all the memories and beliefs, took over. A third

hypothesis is that every five years a new soul takes over. A fourth is that every five minutes a new soul takes over. The most radical is that there is a constant flow of souls through this body, each psychologically similar to the preceding, as there is a constant flow of water molecules down the Blue. What evidence do I have that the first hypothesis, the "single soul hypothesis," is true, and not one of the others? Because I am the same person I was five minutes or five years ago? But the issue in question is simply whether from sameness of person, which isn't in doubt, we can infer sameness of soul. Sameness of body? But how do I establish a stable relationship between soul and body? Sameness of thoughts and sensations? But they are in constant flux. By the nature of the case, if the soul cannot be observed, it cannot be observed to be the same. Indeed, no sense has ever been assigned to the phrase "same soul." Nor could any sense be attached to it! One would have to say what a single soul looked like or felt like, how an encounter with a single soul at different times differed from encounters with different souls. But this can hardly be done, since a soul on your conception doesn't look or feel like anything at all. And so of course "souls" can afford no principle of identity. And so they cannot be used to bridge the gulf between my existence now and my existence in the hereafter.

Miller: Do you doubt the existence of your own soul?

Weirob: I haven't based my argument on there being no immaterial souls of the sort you describe, but merely on their total irrelevance to questions of personal identity, and so to questions of personal survival. I do indeed harbor grave doubts whether there are any immaterial souls of the sort to which you appeal. Can we have a notion of a soul unless we have a notion of the same soul? But I hope you do not think that means I doubt my own existence. I think I lie here, overweight and conscious. I think you can see me, not just some outer wrapping, for I think I am just a live human body. But that is not the basis of my argument. I give you these souls. I merely observe they can by their nature provide no principle of personal identity.

Miller: I admit I have no answer.

I'm afraid I do not comfort you, though I have perhaps provided you with some entertainment. Emerson said that a little philosophy turns one away from religion, but that deeper understanding brings one back. I know no one who has thought so long and hard about philosophy as you have. Will it never lead you back to a religious frame of mind?

Weirob: My former husband used to say that a little philosophy turns one away from religion, and more philosophy makes one a pain in the neck. Perhaps he was closer to the truth than Emerson.

Miller: Perhaps he was. But perhaps by tomorrow night I will have come up with some argument that will turn you around.

Weirob: I hope I live to hear it.

THE SECOND NIGHT

Weirob: Well, Sam, have you figured out a way to make sense of the identity of immaterial souls?

Miller: No, I have decided it was a mistake to build my argument on such a dubious notion.

Weirob: Have you then given up on survival? I think such a position would be a hard one for a clergyman to be talked into, and would feel bad about having pushed you so far.

Miller: Don't worry. I'm more convinced than ever. I stayed up late last night thinking and reading, and I'm sure I can convince you now.

Weirob: Get with it, time is running out.

Miller: First, let me explain why, independently of my desire to defend survival after

death, I am dissatisfied with your view that personal identity is just bodily identity. My argument will be very similar to the one you used to convince me that personal identity could not be identified with identity of an immaterial soul.

Consider a person waking up tomorrow morning, conscious, but not yet ready to open her eyes and look around and, so to speak, let the new day officially begin.

Weirob: Such a state is familiar enough, I admit.

Miller: Now couldn't such a person tell who she was, That is, even before opening her eyes and looking around, and in particular before looking at her body or making any judgements about it, wouldn't she be able to say who she was? Surely most of us, in the morning, know who we are before opening our eyes and recognizing our own bodies, do we not,

Weirob: You seem to be right about that.

Miller: But such a judgement as this person makes-we shall suppose she judges "I am Gretchen Weirob"-is a judgement of personal identity. Suppose she says to herself, "I am the very person who was arguing with Sam Miller last night." This is clearly a statement about her identity with someone who was alive the night before. And she could make this judgement without examining her body at all. You could have made just this judgement this morning, before opening your eyes.

Weirob: Well, in fact I did so. I remembered our conversation of last night and said to myself, "Could I be the rude person who was so hard on Sam Miller's attempts to comfort me?" And, of course, my answer was that I not only could be but was that very rude person.

Miller: But then by the same principle you used last night, personal identity cannot be bodily identity. For you said that it could not be identity of immaterial soul because we were not judging as to identity of immaterial soul when we judge as to personal identity. But by the same token, as my example shows, we are not judging as to bodily identity when we judge as to personal identity. For we can judge who we are, and that we are the very person who did such and such and so and so, without having to make any judgements at all about the body. So, personal identity, while it may not consist of identity of an immaterial soul, does not consist in identity of material body either.

Weirob: I did argue as you remember. But I also said that the notion of the identity of an immaterial, unobservable, unextended soul seemed to make no sense at all. This is one reason such souls cannot be what we are judging about, when we judge as to personal identity. Bodily identity at least makes sense. Perhaps we are just assuming sameness of body, without looking.

Miller: Granted. But you do admit that we do not in our own cases need to actually make a judgement of bodily identity in order to make a judgement of personal identity.

Weirob: I don't think I will admit it. I will let it pass, so that we may proceed.

Miller: OK. Now it seems to me we are even able to imagine awakening and finding ourselves to have a different body than the one we had before. Suppose yourself just as I have described you. And now suppose you finally open your eyes and see, not the body you have grown so familiar with over the years, but one of a fundamentally different shape and size.

Weirob: Well I should suppose I had been asleep for a very long time and lost a lot of weight-perhaps I was in a coma for a year or so.

Miller: But isn't it at least conceivable that it should not be your old body at all? I seem to be able to imagine awakening with a totally new body.

Weirob: And how would you suppose that this came about?

Miller: That's beside the point. I'm not saying I can imagine a procedure that would bring this about. I'm saying I can imagine it happening to me. In Katka's *The Metamorphosis*, someone

awakens as a cockroach. I can't imagine what would make this happen to me or anyone else, but I can imagine awakening with the body of a cockroach. It is incredible that it should happen-that I do not deny. I simply mean I can imagine experiencing it. It doesn't seem contradictory or incoherent, simply unlikely and inexplicable.

Weirob: So, if I admit this can be imagined, what follows then?

Miller: Well, I think it follows that personal identity does not just amount to bodily identity. For I would not, finding that I had a new body, conclude that I was not the very same person I was before. I would be the same person, though I did not have the same body. So we would have identity of person but not identity of body. So personal identity cannot just amount to bodily identity.

Weirob: Well, suppose-and I emphasize suppose-I grant you all of this. Where does it leave you? What do you claim I have recognized as the same, if not my body and not my immaterial soul?

trivial, like "This bed is this bed," it is usually because we are really judging that different parts fit together, in some appropriate pattern, into a certain kind of whole. Miller: I don't claim that you have recognized anything as the same, except the person involved, that is, you yourself.

Weirob: I'm not sure what you mean.

Miller: Let me appeal again to the Blue River. Suppose I take a visitor to the stretch of river by the old Mill, and then drive him toward Manhattan. After an hour or so drive we see another stretch of river, and I say, "That's the same river we saw this morning." As you pointed out yesterday, I don't thereby imply that the very same molecules of water are seen both times. And the places are different, perhaps a hundred miles apart. And the shape and color and level of pollution might all be different. What do I see later in the day that is identical with what I saw earlier in the day?

Weirob: Nothing, except the river itself.

Miller: Exactly. But now notice that what I see, strictly speaking, is not the whole river but only a part of it. I see different parts of the same river at the two different times. So really, if we restrict ourselves to what I literally see, I do not judge identity at all, but something else.

Weirob: And what might that be?

Miller: In saying that the river seen earlier and the river seen later are one and the same river, do I mean any more than that the stretch of water seen later and that stretch of water seen earlier are connected by other stretches of water?

Weirob: That's about right. If the stretches of water are so connected, there is but one river of which they are both parts.

Miller: Yes, that's what I mean. The statement of identity, "This river is the same one we saw this morning," is in a sense about rivers. But in a way it is also about stretches of water or river parts.

Weirob: So, is all of this something special about rivers?

Miller: Not at all. It is a recurring pattern. After all, we constantly deal with objects extended in space and time. But we are seldom aware of the objects as a whole, but only of their parts or stretches of their histories. When a statement of identity is not just something

Weirob: I'm not sure I see just what you mean yet.

Miller: Let me give you another example. Suppose we are sitting together watching the first game of a doubleheader. You ask me, "Is this game identical with this game?" This is a perfectly stupid question, though, of course, strictly speaking it makes sense and the answer is "yes."

But now suppose you leave in the sixth inning to go for hot dogs. You are delayed, and return after about forty-five minutes or so. You ask, "Is this the same game I was watching?" Now your question is not stupid, but perfectly appropriate.

Weirob: Because the first game might still be going on or it might have ended, and the second game begun, by the time I return.

Miller: Exactly. Which is to say somehow different parts of the game-different innings, or at least different plays-were somehow involved in your question. That's why it wasn't stupid or trivial but significant.

Weirob: So, you think that judgements as to the identity of an object of a certain kind-rivers or baseball games or whatever-involve judgements as to the parts of those things being connected in a certain way, and are significant only when different parts are involved. Is that your point?

Miller: Yes, and I think it is an important one. How foolish it would be, when we ask a question about the identity of baseball games, to look for something else, other than the game as a whole, which had to be the same. It could be the same game, even if different players were involved. It could be the same game, even if it had been moved to a different field. These other things, the innings, the plays, the players, the field, don't have to be the same at the different times for the game to be the same, they just have to be related in certain ways so as to make that complex whole we call a single game.

Weirob: You think we were going off on a kind of a wild goose chase when we asked whether it was the identity of soul or body that was involved in the identity of persons?

Miller: Yes. The answer I should now give is neither. We are wondering about the identity of the person. Of course, if by "soul" we just mean "person," there is no problem. But if we mean, as I did yesterday, some other thing whose identity is already understood, which has to be the same when persons are the same, we are just fooling ourselves with words.

Weirob: With rivers and baseball games, I can see that they are made up of parts connected in a certain way. The connection is, of course, different in the two cases, as is the sort of "part" involved. River parts must be connected physically with other river parts to form a continuous whole. Baseball innings must be connected so that the score, batting order, and the like are carried over from the earlier inning to the latter one according to the rules. Is there something analogous we are to say about persons?

Miller: Writers who concern themselves with this speak of "person-stages." That is just a stretch of consciousness, such as you and I are aware of now. I am aware of a flow of thoughts and feelings that are mine, you are aware of yours. A person is just a whole composed of such stretches as parts, not some substance that underlies them, as I thought yesterday, and not the body in which they occur, as you seem to think. That is the conception of a person I wish to defend today.

Weirob: So when I awoke and said to myself, "I am the one who was so rude to Sam Miller last night," I was judging that a certain stretch of consciousness I was then aware of, and an earlier one I remembered having been aware of, form a single whole of the appropriate sort-a single stream of consciousness, we might say.

Miller: Yes, that's it exactly. You need not worry about whether the same immaterial soul is involved, or whether that even makes sense. Nor need you worry about whether the same body is involved, as indeed you do not since you don't even have to open your eyes and look. Identity is not, so to speak, something under the personstages, nor in something they are attached to, but something you build from them.

Now survival, you can plainly see, is no problem at all once we have this conception of personal identity. All you need suppose is that there is, in Heaven, a conscious being, and that the personstages that make her up are in the appropriate relation to those that now make you up, so that they are parts of the same whole-namely, you. If so, you have survived. So will you admit now that survival is at least possible?

Weirob: Hold on, hold on. Comforting me is not that easy. You will have to show that it is possible that these person-stages or stretches of consciousness be related in the appropriate way. And to do that, won't you have to tell me what that way is?

Miller: Yes, of course, I was getting ahead of myself. It is right at this point that my reading was particularly helpful. In a chapter of his Essay on Human Understanding Locke discusses this very question. He suggests that the relation between two person-stages or stretches of consciousness that makes them stages of a single person is just that the later one contains memories of the earlier one. He doesn't say this in so many words-he talks of "extending our consciousness back in time." But he seems to be thinking of memory.

Weirob: So, any past thought or feeling or intention or desire that I can remember having is mine?

Miller: That's right. I can remember only my own past thoughts and feelings, and you only yours. Of course, everyone would readily admit that. Locke's insight is to take this relation as the source of identity and not just its consequence. To remember-or more plausibly, to be able to remember-the thoughts and feelings of a person who was conscious in the past is just what it is to be that person.

Now you can easily see that this solves the problem of the possibility of survival. As I was saying, all you need to do is imagine someone at some future time, not on this earth and not with your present thoughts and feelings, remembering the very conversation we are having now. This does not require sameness of anything else, but it amounts to sameness of person. So, now will you admit it?

Weirob: No, I don't.

Miller: Well, what's the problem now?

Weirob: I admit that if I remember having a certain thought or feeling had by some person in the past, then I must indeed be that person. Though I can remember watching others think, I cannot remember their thinking, any more than I can experience it at the time it occurs if it is theirs and not mine. This is the kernel of Locke's idea, and I don't see that I could deny it.

But we must distinguish-as I'm sure you will agree-between actually remembering and merely seeming to remember. Many men who think that they are Napoleon claim to remember losing the battle of Waterloo. We may suppose them to be sincere, and to really seem to remember it. But, they do not actually remember, because they were not there and are not Napoleon.

Miller: Of course, I admit that we must distinguish between actually remembering and only seeming to.

Weirob: And you will admit too, I trust, that the thought of some person at some far place and some distant time seeming to remember this conversation I am having with you would not give me the sort of comfort that the prospect of survival is supposed to provide. I would have no reason to anticipate future experiences of this person, simply because she is to seem to remember my experiences. The experiences of such a deluded imposter are not ones I can look forward to having.

Miller: I agree.

Weirob: So, the mere possibility of someone in the future seeming to remember this conversation does not show the possibility of my surviving. Only the possibility of someone actually remembering this conversation-or, to be precise, the experiences I am having-would show that.

Miller: Of course. But what are you driving at? Where is the problem? I can imagine someone being deluded, but also someone actually being you and remembering your present thoughts.

Weirob: But, what's the difference? How do you know which of the two you are imagining, and what you have shown possible?

Miller: Well, I just imagine the one and not the other. I don't see the force of your argument.

Weirob: Let me try to make it clear with another example. Imagine two persons. One is talking to you, saying certain words, having certain thoughts, and so on. The other is not talking to you at all, but is in the next room being hypnotized. The hypnotist gives to this person a posthypnotic suggestion that upon awakening he will remember having had certain thoughts and having uttered certain words to you. The thoughts and words the mentions happen to be just the thoughts and words which the first person actually thinks and says. Do you understand the situation?

Miller: Yes, continue.

Weirob: Now, in a while, both of the people are saying sentences which begin, "I remember saying to Sam Miller..." and "I remember thinking as I talked to Sam Miller..." And they both report remembering just the same thoughts and utterances. One of these will be remembering and the other only seeming to remember, right?

Miller: Of course.

Weirob: Now, which one is actually remembering?

Miller: Why the very one who was in the room talking to me, of course. The other one is just under the influence of the suggestion made by the hypnotist and not remembering talking to me at all.

Weirob: Now you agree that the difference between them does not consist in the content of what they are now thinking or saying.

Miller: Agreed. The difference is in the relation to the past thinking and speaking. In the one case the relation of memory obtains. In the other, it does not.

Weirob: But they both satisfy part of the conditions of remembering, for they both seem to remember. So there must be some further condition that the one satisfies and the other does not. I am trying to get you to say what that further condition is.

Miller: Well, I said that the one who had been in this room talking would be remembering.

Weirob: In other words, given two putative rememberers of some past thought or action, the real rememberer is the one who, in addition to seeming to remember the past thought or action, actually thought it or did it.

Miller: Yes.

Weirob: That is to say, the one who is identical with the person who did the past thinking and uttering.

Miller: Yes, I admit it.

Weirob: So, your argument just amounts to this. Survival is possible, because imaginable. It is imaginable, because my identity with some Heavenly person is imaginable. To imagine it,

we imagine a person in Heaven who, first, seems to remember my thoughts and actions, and second, is me.

Surely, there could hardly be a tighter circle. If I have doubts that the Heavenly person is me, I will have doubts as to whether she is really remembering or only seeming to. No one could doubt the possibility of some future person who, after his or her death, seemed to remember the things he or she thought and did. But that possibility does not resolve the issue about the possibility of survival. Only the possibility of someone actually remembering could do that, for that, as we agree, is sufficient for identity. But doubts about survival and identity simply go over without remainder into doubts about whether the memories would be actual or merely apparent. You guarantee me no more than the possibility of a deluded Heavenly imposter.

Cohen: But wait, Gretchen. I think Sam was less than fair to his own idea just now.

Weirob: You think you can break out of the circle of using real memory to explain identity, and identity to mark the difference between real and apparent memory? Feel free to try.

Cohen: Let us return to your case of the hypnotist. You point out that we have two putative rememberers. You ask what marks the difference, and claim the answer must be the circular one that the real rememberer is the person who actually had the experiences both seem to remember.

But that is not the only possible answer. The experiences themselves cause the later apparent memories in the one case, the hypnotist causes them in the other. We can say that the rememberer is the one of the two whose memories were caused in the right way by the earlier experiences. We thus distinguish between the rememberer and the hypnotic subject, without appeal to identity.

The idea that real memory amounts to apparent memory plus identity is misleading anyway. I seem to remember knocking over the menorah so the candles fell into and ruined a tureen of soup when I was a small child. And I did actually perform such a feat. So we have apparent memory and identity. But I do not actually remember; I was much too young when I did this to remember it now. I have simply been told the story so often I seem to remember.

Here the suggestion that real memory is apparent memory that was caused in the appropriate way by the past events fares better. Not my experience of pulling over the menorah, but my parents' later recounting of the tragedy, cause my memorylike impressions.

Weirob: You analyze personal identity into memory, and memory into apparent memory which is caused in the right way. A person is a certain sort of causal process.

Cohen: Right.

Weirob: Suppose now for the sake of argument I accept this. How does it help Sam in his defense of the possibility of survival? In ordinary memory, the causal chain from remembered event to memory of it never leads us outside the confines of a single body. Indeed, the normal process of which you speak surely involves storage of information somehow in the brain. How can the states of my brain, when I die, influence in the appropriate way the apparent memories of the Heavenly person Sam takes to be me?

Cohen: Well, I didn't intend to be defending the possibility of survival. That is Sam's problem. I just like the idea that personal identity can be explained in terms of memory, and not just in terms of identity of the body.

Miller: But surely, this does provide me with the basis for further defense. Your challenge, Gretchen, was to explain the difference between two persons in Heaven, one who actually remembers your experience-and so is you-and one who simply seems to remember it. But can I not just say that the one who is you is the one whose states were caused in the

appropriate way? I do not mean the way they would be in a normal case of earthly memory. But in the case of the Heavenly being who is you, God would

have created her with the brain states (or whatever) she has because you had the ones you had at death. Surely it is not the exact form of the dependence of my later memories on my earlier perceptions that makes them really to be memories, but the fact that the process involved has preserved information.

Weirob: So if God creates a Heavenly person, designing her brain to duplicate the brain I have upon death, that person is me. If, on the other hand, a Heavenly being should come to be with those very same memory-like states by accident (if there are accidents in Heaven) it would not be me.

Miller: Exactly. Are you satisfied now that

survival makes perfectly good sense? Weirob: No, I'm still quite unconvinced.

The problem I see is this. If God could create one person in Heaven, and by designing her after me, make her me, why could He not make two such bodies, and cause this transfer of information into both of them? Would both of these Heavenly persons then be me? It seems as clear as anything in philosophy that from

A is B

and

C is B

where by "is" we mean identity, we can infer,

A is C.

So, if each of these Heavenly persons is me, they must be each other. But then they are not two but one. But my assumption was that God creates two, not one. He could create them physically distinct, capable of independent movement, perhaps in widely separated Heavenly locations, each with her own duties to perform, her own circle of Heavenly friends, and the like.

So either God, by creating a Heavenly person with a brain modeled after mine does not really create someone identical with me but merely someone similar to me, or God is somehow limited to making only one such being. I can see no reason why, if there were a God, He should be so limited. So I take the first option. He could create someone similar to me, but not someone who would be me. Either your analysis of memory is wrong, and such a being does not, after all, remember what I am doing or saying, or memory is not sufficient for personal identity. Your theory has gone wrong somewhere, for it leads to absurdity.

Cohen: But wait. Why can't Sam simply say that if God makes one such creature, she is you, while if He makes more, none of them are you? It's possible that He makes only one. So it's possible that you survive. Sam always meant to allow that it's possible that you won't survive. He had in mind the case in which there is no God to make the appropriate Heavenly persons, or God exists, but just doesn't make even one. You have simply shown that there is another way of not surviving. Instead of making too few Heavenly rememberers, He makes too many. So what? He might make the right number, and then you would survive.

Weirob: Your remarks really amount to a change in your position. Now you are not claiming that memory alone is enough for personal identity. Now, it is memory plus lack of competition, the absence of other rememberers, that is needed for personal identity.

Cohen: It does amount to a change of position. But what of it? Is there anything

untenable about the position as changed?

Weirob: Let's look at this from the point of view of the Heavenly person. She says to herself, "Oh, I must be Gretchen Weirob, for I remember doing what she did and saying what she said." But now that's a pretty tenuous conclusion, isn't it? She is really only entitled to say, "Oh, either Fin Gretchen Weirob, or God has created more than one being like me, and none of us arc." Identity has become something dependent on things wholly extrinsic to her. Who she is now turns on not just her states of mind and their relation to my states of mind, but on the existence or nonexistence of other people. Is this really what you want to maintain?

Or look at it from my point of view. God creates one of me in Heaven. Surely I should be glad if convinced this was to happen. Now He creates another, and I should despair again, for this means I won't survive after all. How can doubling a good deed make it worthless?

Cohen: Are you saying that there is some contradiction in my suggestion that only a unique Heavenly Gretchen counts as your survival?

Weirob: No, it's not contradictory, as far as I can see. But it seems odd in a way that shows that something somewhere is wrong with your theory. Here is a certain relationship I have with a Heavenly person. There being such a person, to whom I am related in this way, is something that is of great importance to me, a source of comfort. It makes it appropriate for me to anticipate having her experiences, since she is just me. Why should my having that relation to another being destroy my relation to this one? You say because then I will not be identical with either of them. But since you have provided a theory about what that identity consists in, we can look and see what it amounts to for me to be or not to be identical. If she is to remember my experience, I can rightly anticipate hers. But then it seems the doubling makes no difference. And yet it must, for one cannot be identical with two. So you add, in a purely ad hoc manner, that her memory of me isn't enough to make my anticipation of her experiences appropriate, if there are two rather than one so linked. Isn't it more reasonable to conclude, since memory does not secure identity when there are two Heavenly Gretchens, it also doesn't when there is only one?

Cohen: There is something ad hoc about it, I admit. But perhaps that's just the way our concept works. You have not elicited a contradiction ...

Weirob: An infinite pile of absurdities has the same weight as a contradiction. And absurdities can be generated from your account without limit. Suppose God created this Heavenly person before I died. Then He in effect kills me; if He has already created her, then you really are not talking to whom you think, but someone new, created by Gretchen Weirob's strange death moments ago. Or suppose He first creates one being in Heaven, who is inc. Then He created another. Does the first cease to be me? If God can create such beings in Heaven, surely He can do so in Albuquerque. And there is nothing on your theory to favor this body before you as Gretchen Weirob's, over the one belonging to the person created in Albuquerque. So I am to suppose that if God were to do this, I would suddenly cease to be. I'm tempted to say I would cease to be Gretchen Weirob. But that would be a confused way of putting it. There would be here, in my place, a new person with false memories of having been Gretchen Weirob, who has just died of competition-a strange death, if ever there was one. She would have no right to my name, my bank account, or the services of my doctor, who is paid from insurance premiums paid for by deductions from Gretchen Weirob's past salary. Surely this is nonsense; however carefully God should choose to duplicate me, in Heaven or in Albuquerque, I would not cease to be, or cease to be who I am. You may reply that God, being benevolent, would never create an extra Gretchen Weirob. But I do not say that He would, but only that if He did this would not, as

your theory implies, mean that I cease to exist. Your theory gives the wrong answer in this possible circumstance, so it must be wrong. I think I have been given no motivation to abandon the most obvious and straightforward view on these matters. I am a live body, and when that body dies, my existence will be at an end.

THE THIRD NIGHT

Weirob: Well, Sam, are you here for a third attempt to convince me of the possibility of survival?

Miller: No, I have given up. I suggest we talk about fishing or football or something unrelated to your imminent demise. You will outwit any straightforward attempts to comfort you, but perhaps I can at least divert your mind.

Cohen: But before we start on fishing ... although I don't have any particular brief for survival, there is one point in our discussion of the last two evenings that still bothers me. Would you mind discussing for a while the notion of personal identity itself, without worrying about the more difficult case of survival after death?

Weirob: I would enjoy it. What point bothers you?

Cohen: Your position seems to be that personal identity amounts to identity of a human body, nothing more, nothing less. A person is just a live human body, or more precisely, I suppose, a human body that is alive and has certain and perhaps rationality. Is that right?

Weirob: Yes, it seems that simple to me.

Cohen: But I think there has actually been an episode which disproves that. I am thinking of the strange case of Julia North, which occurred in California a few months ago. Surely you remember it.

Weirob: Yes, only too well. But you had better explain it to Sam, for I'll wager he has not heard of it.

Cohen: Not heard of Julia North? But the case was all over the headlines.

Miller: Well, Gretchen is right. I know nothing of it. She knows that I only read the sports page.

Cohen: You only read the sports page! Weirob: It's an expression of his unconcern with earthly matters.

Miller: Well, that's not quite fair, Gretchen. It's a matter of preference. I much prefer to spend what time I have for reading in reading about the eighteenth century, rather than the drab and miserable century into which I had the misfortune to be born. It was really a much more civilized century, you know. But let's not dwell on my peculiar habits. Tell me about Julia North.

Cohen: Very well. Julia North was a young woman who was run over by a street car while saving the life of a young child who wandered onto the tracks. The child's mother, one Mary Frances Beaudine, had a stroke while watching the horrible scene. Julia's healthy brain and wasted body, and Mary Frances' healthy body and wasted brain, were transported to a hospital where a brilliant neurosurgeon, Dr. Matthews, was in residence. He had worked out a procedure for what he called a "body transplant." He removed the brain from Julia's head and placed it in Mary Frances', splicing the nerves, etc., using techniques not available until quite recently. The survivor of all this was obviously Julia, as everyone unfortunately, Mary Frances' husband. His shortsightedness and lack of imagination led to great complications and drama and made the case more famous in the history of crime than in the history of medicine. I shall not go into the details of this sorry aspect of the case-they are well reported in a book by Barbara Harris called *Who Is Julia*, in case you are interested.

Miller: Fascinating!

Cohen: Well, the relevance of this case is obvious. Julia North had one body up until the time of the accident, and another body after the operation. So one person had two bodies. So a person cannot be simply identified with a human body. So something must be wrong with your view, Gretchen. What do you say to this,

Weirob: I'll say to you just what I said to Dr. Matthews ...

Cohen: You have spoken with Dr. Matthews?

Weirob: Yes. He contacted me shortly after my accident. My physician had phoned him up about my case. Matthews said he could perform the same operation for me he did for Julia North. I refused.

Cohen: You refused! But Gretchen, why...,'

Miller: Gretchen, I am shocked. Your decision practically amounts to suicide! You passed up an opportunity to continue living? Why on earth...,'

Weirob: Hold on, hold on. You are both making an assumption I reject. If the case of Julia North amounts to a counterexample to my view that a person is just a live human body, and if my refusal to submit to this procedure amounts to passing up an option to survive, then the survivor of such an operation must be reckoned as the same person as the brain donor. That is, the survivor of Julia North's operation must have been Julia, and the survivor of the operation on me would have to be me. This is the assumption you both make in criticizing me. But I reject it. I think Jack Beaudine was right. The survivor of the operation involving Julia North's brain was Mary Frances Beaudine, and the survivor of the operation which was to involve my brain would not have been me.

Miller: Gretchen, how on earth can you say that, Will you not give up your view that personal identity is just bodily identity, no matter how clear the counterexample? I really think you simply have an irrational attachment to the lump of material that is your body.

Cohen: Yes, Gretchen, I agree with Sam. You are being preposterous! The survivor of Julia North's operation had no idea who Mary Frances Beaudine was. She remembered being Julia ..

Weirob: She seemed to remember being Julia. Have you forgotten so quickly the importance of this distinction? In my opinion, the effect of the operation was that Mary Frances Beaudine survived deluded, thinking she was someone else.

Cohen: But as you know, the case was litigated. It went to the Supreme Court. They said that the survivor was Julia.

Weirob: That argument is unworthy of you, Dave. Is the Supreme Court infallible?

Cohen: No, they aren't. But I don't think it's such a stupid point.

Look at it this way, Gretchen. This is a case in which two criteria we use to make judgements of identity conflict. Usually we expect personal identity to involve both bodily identity and psychological continuity. That is, we expect that if we have the same body, then the beliefs, memories, character traits and the like also will be enormously similar. In this case, these two criteria which usually coincide do not. If we choose one criterion, we say that the survivor is Mary Frances Beaudine and she has undergone drastic psychological changes. If we choose the other, we say that Julia has survived with a new body. We have to choose which criterion is more important. It's a matter of choice of how to use our language, how to extend the concept "same person" to a new situation. The overwhelming majority of people involved in the case took the survivor to be Julia. That is, society chose to use the concept one way rather than the other. The Supreme Court is not beside the point. One of their functions is to settle just how old concepts shall be applied to new circumstances-how "freedom of the press" is to be understood when

applied to movies or television, whose existence was not foreseen when the concept was shaped, or to say whether "murder" is to include the abortion of a foetus. They are fallible on points of fact, but they are the final authority on the development of certain important concepts used in law. The notion of person is such a concept.

Weirob: You think that who the survivor was, was a matter of convention, of how we choose to use language?

Cohen: Yes.

Weirob: I can show the preposterousness of all that with an example.

Let us suppose that I agree to the operation. I lie in bed, expecting my continued existence, anticipating the feelings and thoughts I shall have upon awakening after the operation. Dr. Matthews enters and asks me to take several aspirin, so as not to have a headache when I awake. I protest that aspirins upset my stomach; he asks whether I would have a terrible headache tomorrow or a mild stomachache now, and I agree that it would be reasonable to take them.

Let us suppose you enter at this point with bad news. The Supreme Court has changed its mind! So the survivor will not be me. So, I say, "Oh, then I will not take the aspirin, for it's not me that will have a headache, but someone else. Why should I endure a stomachache, however mild, for the comfort of someone else? After all, I am already donating my brain to that person."

Now this is clearly absurd. If I was correct, in the first place, to anticipate having the sensations and thoughts that the survivor is to have the next day, the decision of nine old men a thousand or so miles away wouldn't make me wrong. And if I was wrong so to anticipate, their decision couldn't make me right. How can the correctness of my anticipation of survival be a matter of the way we use our words? If it is not such a matter, then my identity is not either. My identity with the survivor, my survival, is a question of fact, not of convention.

Cohen: Your example is persuasive. I admit I am befuddled. On the one hand, I cannot see how the matter can be other than I have described. When we know all the facts what can remain to be decided but how we are to describe them, how we are to use our language? And yet I can see that it seems absurd to suppose that the correctness or incorrectness of anticipation of future experience is a matter for convention to decide.

Miller: Well, I didn't think the business about convention was very plausible anyway.

But I should like to return you to the main question, Gretchen. Fact or convention, it still remains. Why will you not admit that the survivor of this operation would be you?

Weirob: Well, you tell me, why do you think she would be me?

Miller: I can appeal to the theory I developed last night. You argued that the idea that personal identity consists in memory would not guarantee the possibility of survival after death. But you said nothing to shake its plausibility as an account of personal identity. It has the enormous advantage, remember, of making sense of our ability to judge our own identity, without examination of our bodies. I should argue that it is the correctness of this theory that explains the almost universal willingness to say that the survivor of Julia's operation was Julia. We need not deliberate over how to extend our concept, we need only apply the concept we already have. Memory is sufficient for identity and bodily identity is not necessary for it. The survivor remembered Julia's thoughts and actions, and so was Julia. Would you but submit to the operation, the survivor would remember your thoughts and actions, would remember this very conversation we are now having, and would be you.

Cohen: Yes, I now agree completely with Sam. The theory that personal identity is to be analyzed in terms of memory is correct, and according to it you will survive if you submit to the

operation.

Let me add another argument against your view and in favor of the memory theory. You have emphasized that identity is the condition of anticipation. That means, among other things, that we have a particular concern for that person in the future whom we take to be ourselves. If I were told that any of the three of us were to suffer pain tomorrow, I should be sad. But if it were you or Sam that were to be hurt, my concern would be altruistic or unselfish. That is because I would not anticipate having the painful experience myself. Here I do no more than repeat points you have made earlier in our conversations.

Now what is there about mere sameness of body that makes sense of this asymmetry, between the way we look at our own futures, and the way we look at the futures of others? In other words, why is the identity of your body that mere lump of matter, as Sam put it-of such great importance? Why care so much about it?

Weirob: You say, and I surely agree, that identity of person is a very special relationship so special as perhaps not even happily called a relationship at all. And you say that since my theory is that identity of person is identity of body, I should be able to explain the importance of the one in terms of the importance of the other.

I'm not sure I can do that. But does the theory that personal identity consists in memory fare better on this score?

Cohen: Well, I think it does. Those properties of persons which make persons of such great value, and mark their individuality, and make one person so special to his friends and loved ones, are ultimately psychological or mental. One's character, personality, beliefs, attitudes, convictions-they are what make every person so unique and special. A skinny Gretchen would be a shock to us all, but not a Gretchen diminished in any important way. But a Gretchen who was not witty, or not gruff, or not as honest to the path an argument takes as is humanly possible-those would be fundamental changes. Is it any wonder that the survivor of that California fiasco was reckoned as Julia North? Would it make sense to take her to be Mary Jane Beaudine, when she had none of her beliefs or attitudes or memories?

Now if such properties are what is of importance about a person to others, is it not reasonable that they are the basis of one's importance to oneself? And these are just the properties that personal identity preserves when it is taken to consist in links of memory. Do we not have, in this idea, at least the beginning of an explanation of the importance of identity?

Weirob: So on two counts you two favor the memory theory. First, you say it explains how it is possible to judge as to one's own identity, without having to examine one's body. Second, you say it explains the importance of personal identity.

Cohen: Now surely you must agree the memory theory is correct. Do you agree? There may still be time to contact Dr. Matthews ...

Weirob: Hold on, hold on. I'm still not persuaded. Granted the survivor will think she is me, will seem to remember thinking my thoughts. But recall the importance of distinguishing between real and merely apparent memory ...

Cohen: But you recall that this distinction is to be made on the basis of whether the apparent memories were or were not caused by the prior experiences in the appropriate way. The survivor will not seem to remember your thoughts because of hypnosis or by coincidence or overweening imagination. She will seem to remember them because the traces those experiences left on your brain now activate her mind in the usual way. She will seem to remember them because she does remember them, and will be you.

Weirob: Let's go over this slowly. We all agree that the fact that the survivor of this

strange operation Dr. Matthews proposes would seem to remember doing what I have done. Let us even suppose she would take herself to be me, claim to be Gretchen Weirop-and have no idea who else she might be. (We are then assuming that she differs from me in one theory of personal identity. But that does not show her not to be me, for I could change my mind by then.) We all first agree that this much does not make her me. For this could all be true of someone suffering a delusion or a subject of hypnosis.

Cohen: Yes, this is all agreed.

Weirop: But now you think that some further condition is satisfied, which makes her apparent memories real memories. Now what exactly is this further condition?

Cohen: Well, that the same brain was involved in the perception of the events, and their later memory. Thus a causal chain of just the same sort as when only a single body is involved is involved here. That is, perceptions when the event occurs leave a trace in the brain, which is later responsible for the content of the memory. And we agreed, did we not, that apparent memory, caused in the right way, is real memory?

Weirop: Now is it absolutely crucial that the same brain is involved?

Cohen: What do you mean?

Weirop: Let me explain again by reference to Dr. Matthews. In our conversation he explained a new procedure on which he was working called a brain rejuvenation. By this process, which is not yet available-only the feasibility of developing it is being studied-a new brain could be made which is an exact duplicate of my brain. That is, an exact duplicate in terms of psychologically relevant states. It might not duplicate all the properties of my brain; for example, the blood vessels in the new brain might be stronger than in the old brain.

Miller: What is the point of developing such a macabre technique?

Weirop: Dr. Matthews' idea is that when weaknesses which might lead to stroke or other brain injury are noted, a healthy duplicate could be made, and replace the original, forestalling the problem.

Now Dave, suppose my problem were not with my liver and kidneys and such, but with my brain. Would you recommend such an operation as to my benefit?

Cohen: You mean, do I think the survivor of such an operation would be you,

Weirop: Exactly. You may assume that Dr. Matthews' technique works perfectly so the causal process involved is no less reliable than that involved in ordinary memory.

Cohen: Then I would say it was you ... No! Wait! No, it wouldn't be you. Absolutely not! Miller: But why the sudden reversal? It seems

to me it would be her. Indeed, I should try such an operation myself, if it would clear up my dizzy spells and leave me otherwise unaffected.

Cohen: No, don't you see, she is leading us into a false trap. If we say it is her, then she will say, "Then what if he makes two duplicates, or three or ten? They can't all be me, they all have an equal claim, so none will be me." It would be the argument of last night, reapplied on earth. So the answer is no, absolutely not, it wouldn't be you. Duplication of self does not preserve identity. Identity of the person requires identity of the brain.

Miller: Quite right.

Weirop: Now let me see if I have your theory straight. Suppose we have two bodies, A and B. My brain is put into A, a duplicate into B. The survivor of this, call them "A-Gretchen" and "B-Gretchen," both seem to remember giving this very speech. Both are in this state of seeming

to remember, as the last stage in an informationpreserving causal chain, initiated by my

giving this speech. Both have my character, personality, beliefs, and the like. But one is really remembering, the other is not. A-Gretchen is really me, BGretchen is not.

Cohen: Precisely. Is this incoherent?

Weirob: No, I guess there is nothing incoherent about it. But look what has happened to the advantages you claimed for the memory theory.

First, you said, it explains how I can know who I am without opening my eyes and recognizing my body. But in your theory Gretchen-A and Gretchen-B cannot know who they are even if they do open their eyes and examine their bodies. How is Gretchen-A to know whether she has the original brain and is who she seems to be, or has the duplicate and is a new person, only a few minutes old, and with no memories but my delusions? If the hospital kept careless records, or the surgeon thought it was of no great importance to keep track of who got the original and who got the duplicate, she might never know who she was. By making identity of person turn into identity of brain, your theory makes the ease with which I can determine who I am not less, but more mysterious than my theory.

Second, you said, your theory explains why my concern for Gretchen-A, who is me whether she knows it or not, would be selfish, and my anticipation of her experience correct while my concern for Gretchen-B with her duplicated brain would be unselfish, and my anticipation of having her experiences incorrect. And it explains this, you said, because by insisting on the links of memory, we preserve in personal identity more psychological characteristics which are the most important features of a person.

But Gretchen-A and Gretchen-B are psychologically indistinguishable. Though they will go their separate ways, at the moment of awakening they could well be exactly similar in every psychological respect. In terms of character and belief and the contents of their minds, Gretchen-A is no more like me than Gretchen-B. So there is nothing in your theory after all, to explain why anticipation is appropriate when we have identity, and not otherwise.

You said, Sam, that I had an irrational attachment for this unworthy material object, my body. But you too are as irrationally attached to your brain. I have never seen my brain. I should have easily given it up, for a rejuvenated version, had that been the choice with which I was faced. I have never seen it, never felt it, and have no attachment to it. But my body? That seems to me all that I am. I see no point in trying to evade its fate.

Perhaps I miss the merit of your arguments. I am tired, and perhaps my poor brain, feeling slighted, has begun to desert me ...

Cohen: Oh don't worry Gretchen, you are still clever. Again you have left me befuddled. I don't know what to say. But answer me this. Suppose you are right and we are wrong. But suppose these arguments had not occurred to you, and, sharing in our error, you had agreed to the operation. You anticipate the operation until it happens, thinking you will survive. You are happy. The survivor takes herself to be you, and thinks she made a decision before the operation which has now turned out to be right. She is happy. Your friends are happy. Who would be worse off, either before or after the operation?

Suppose even that you realize identity would not be preserved by such an operation but have it done anyway, and as the time for the operation approaches, you go ahead and anticipate the experiences of the survivor. Where exactly is the mistake? Do you really have any less reason to care for the survivor than for yourself? Can mere identity of body, the lack of which alone keeps you from being her, mean that much? Perhaps we were wrong, after all, in focusing on identity as the necessary condition of anticipation ...

Miller: It's too late, Dave.

NOTES

The First Night: The arguments against the position that personal identity consists in identity of an immaterial soul are similar to those found in John Locke, "Of Identity and Diversity," Chapter 1 of Book II of *Essay*

Concerning Human Understanding. This chapter first appeared in the second edition of 1694.

The Second Night: The arguments against the view that personal identity consists in bodily identity are also suggested by Locke, as is the theory that memory is what is crucial. The argument that the memory theory is circular was made by Joseph Butler in "Of Personal Identity," an Appendix to his *Analogy of Religion*, first published in 1736. Locke's memory theory has been developed by a number of modern authors, including Sydney Shoemaker. The possibility of circumventing Butler's charge of circularity by an appeal to causation is noted by David Wiggins in *Identity and Spatial Temporal Continuity*. The "duplication argument" was apparently first used by the eighteenth-century free thinker, Antony Collins. Collins assumed that something like Locke's theory of personal identity was correct, and used the duplication argument to raise problems for the doctrine of immortality.

The Third Night.: *Who Is Julia?* by Barbara Harris, is an engaging novel published in 1972. (Dr. Matthews had not yet thought of brain rejuvenations.)

Locke considers the possibility of the "consciousness" of a prince being transferred to the body of a cobbler. The idea of using the removal of a brain to suggest how this might happen comes from Sydney Shoemaker's seminal book, *Self-Knowledge and Self-Identity* (1963). Bernard Williams has cleverly and articulately resisted the memory theory and the view that such a brain removal would amount to a body transplant in a number of important articles which are collected in his book *Problems of the Self* (1973). In particular, Williams has stressed the relevance of the duplication argument even in questions of terrestrial personal identity. Weir's position in this essay is more inspired by Williams than anyone else. I have discussed Williams' arguments and related topics in "Can the Self Divide?" (*Journal of Philosophy*, 1972) and a review of his book (*Journal of Philosophy*, 1976).

An important article on the themes which emerge toward the end of the dialogue is Derek Parfit's "Personal Identity" (*Philosophical Review*, 1971). This article, along with Locke's chapter and a number of other important chapters and articles by Hume, Shoemaker, Williams, and others are collected in my anthology *Personal Identity* (1975). A number of new articles on personal identity appear in Amelie Rorty (ed.), *The Identities of Persons* (1976).

PART FOUR

Determinism, Free Will, and Responsibility

W

HAT ARE WE ASKING WHEN we ask why something happened? Will an adequate explanation show us that in some sense or other the event to be explained had to happen in the way it did? In principle, are voluntary actions subject to the same kinds of explanations as physical events? If, in principle, everything that happens can be explained by science, is there then no such thing in the universe as random chance, genuine contingency, and uncertainty? These questions have great interest to the philosopher in their own right; but they also are of great strategic importance to the continuing arguments over the ancient riddle of determinism versus free will.

Determinism is the theory that all events, including human actions and choices, are, without exception, totally determined. What does it mean to say that an event (a past event, E, for instance) is "totally determined"? To this question various answers have been given, which for our present purposes we can take to be roughly equivalent.¹

1. E was completely caused.
2. There were antecedent sufficient conditions for E; that is, conditions such that given their occurrence E had to occur.
3. It was causally necessary that E occur.
4. Given what preceded it, it was inevitable that E take place.
5. E is subsumable under a universal law of nature; that is, the occurrence of E was deducible from a description of the conditions that obtained before its occurrence and certain universal laws.
6. The occurrence of E is subject in principle to scientific explanation.
7. The occurrence of E was in principle predictable.
8. There are circumstances and laws which, if they had been known, would have made it possible for one to predict the occurrence and exact nature of E.

Indeterminism, the logical contradictory of determinism, is the theory that some events are not determined. Many exponents of indeterminism hold that the events that are not determined are human actions.

There are a number of commonsense considerations that should at least incline a reflective person toward determinism. Whenever we plant seeds, or plug in a machine, or prepare for a storm, we act in the expectation that physical events will occur in accordance with known laws of nature. Hardly anyone would deny, moreover, that physical characteristics of human beings-the color of their eyes, the cellular structure of their brains, glands, and other organs-are determined exactly by their genetic inheritance. And pediatricians and parents of large broods have often observed that temperament is determined, at least to a large degree, right from birth. To a large extent our characters, personalities, and intellects are a consequence of our inherited physical capacities and temperamental proclivities, and our choices in turn reflect our characters. Similarly, our early childhood training, family environment, and education have formative influences on character. We do what we do because we are what we are, and we are what we are-at least to a large extent because our genes and the influencing conduct of others have formed us that way.

At the same time, common sense recognizes that human beings do some things "of their

own free will," that is, act in circumstances in which they might very well have done something else instead. This commonsense observation is hard to reconcile with determinism, which seems to imply that every event that occurs is the only one that could have occurred in the circumstances. This in turn seems to imply that no matter what I did a moment ago, I could not have done otherwise-which, in turn, seems to say that I had to do what I did, that I was not a free agent. But, most of us would agree, my ability to do otherwise is a necessary condition of praise or blame, reward or punishment-in short, for my being responsible. Therefore, if determinism cannot be reconciled with the ability to do otherwise, it cannot be reconciled with moral responsibility either. But we do hold people responsible for what they do (indeed, some say we must hold people responsible); therefore (some have argued), so much the worse for determinism. Such is the commonsense case against determinism.

Common sense, however, is no more pleased with indeterminism, which seems to give no satisfactory answer at all to any query of the form "Why did this happen rather than some other thing?" The reply "It just happened, that's all" inevitably leaves us unsatisfied. If we drop a stone and, to our astonishment, it rises straight up in the air instead of falling, we won't rest content with the "explanation" that "it was just one of those things-a totally random chance occurrence without rhyme or reason." We are even less likely to accept "chance" as an "explanation" for human actions. Such an explanation, we feel, makes all human actions arbitrary and unintelligible; it also seems to destroy the intimate bond between a person and his actions that is required by judgments of moral responsibility. Yet just insofar as a person's action was uncaused, just so far does it seem to have occurred "without rhyme or reason," as a "matter of pure chance." In the words of one determinist: "in proportion as an act of volition starts of itself without cause it is exactly, so far as the freedom of the individual is concerned, as if it had been thrown into his mind from without-'suggested to him by a freakish demon.'"²

Common sense thus is tied up in knots. It looks with little favor either on determinism or indeterminism in respect to human actions. Yet because these two theories are defined as logical contradictories, one of them must be true. The plight of common sense thus takes the form of a dilemma; that is, an argument of the form

1. If P is true, then Q is true.
2. If not-P is true, then Q is true.
3. Either P is true or not-P is true.
4. Therefore, Q is true (where Q is something repugnant or antecedently unacceptable).

The dilemma of determinism can be stated thus:

1. If determinism is true, we can never do other than we do; hence, we are never responsible for what we do.
2. If indeterminism is true, then some events-namely, human actions-are random, hence not free; hence, we are never responsible for what we do.
3. Either determinism is true or else indeterminism is true.
4. Therefore, we are never responsible for what we do.

There are several ways we might try to escape being gored by the "horns of the dilemma," but one way is not open to us. We may not deny the third premise; for, given our definitions of determinism and indeterminism, it amounts simply to the statement that either

determinism is true or else it is not—surely an innocuous claim! We are, in short, not able in this case to get "between the horns of the dilemma" by denying its disjunctive premise.

We are thus left with three possibilities. We can deny the first premise and hold that determinism is, after all, perfectly compatible with free will and responsibility; or we can deny the second premise and hold that we can act freely, and are responsible for our actions, even though they are uncaused; or finally we can accept the entire argument just as it stands and argue on independent grounds that its conclusion is not so "repugnant" or so "antecedently unacceptable" as it seems at first appearance.

Those who deny the dilemma's first premise are nowadays called compatibilists (sometimes also soft determinists). Their central claim is that we can have free will, and be morally responsible for our choices and actions, even if determinism is true. Most compatibilists have believed that determinism is, in fact, true. Both A. J. Ayer and Walter Stace, two of the compatibilists represented here, take this position. Our third, contemporary philosopher John Martin Fischer, is more cautious, and claims that the jury isn't yet in regarding determinism's truth. Still, he says, we can be free even if it does turn out that the world operates in a wholly deterministic way.

The key issue that divides compatibilists from their libertarian and hard determinist opponents is usually the problem of how we should interpret "free to do otherwise," "could have done otherwise," "his act was avoidable," and similar locutions used in support of our ascriptions of blame and punishment, credit or reward. Most parties to the discussion agree that a person can be held morally responsible for his past action only if he was able to do other than he did. Put more tersely: Avoidability is a necessary condition of responsibility. There are two importantly different senses of avoidability in play in these discussions, and we must be careful to distinguish them. In the categorical sense, to say that an act is avoidable is to say that there were no antecedent conditions (causes) sufficient for its occurrence. In the hypothetical sense, to say that an act is avoidable is to say that if the actor had chosen (or, perhaps, intended) to do otherwise, he would have done otherwise (nothing would have stopped him). Avoidability in the hypothetical sense is perfectly compatible with determinism; avoidability in the categorical sense, by definition, is not. Now the question arises: In which of the senses of avoidable—the categorical sense, the hypothetical sense, or both—is it true that a person can be held responsible for his action only if it was avoidable?

The late A. J. Ayer's essay "Freedom and Necessity" presents the standard arguments for the hypothetical analysis of freedom and avoidability as clearly and elegantly as any more recent work. We use the word "standard" in this connection because these arguments were common to all the great philosophers in the tradition of English empiricism—Thomas Hobbes (1588-1679), John Locke (1632-1704), David Hume (1711-1776), John Stuart Mill (1806-1873), and Bertrand Russell (1872-1970). These so-called soft determinists differ from both hard determinists and libertarians over the compatibility of freedom and determinism, but they are also likely to differ with their opponents over the issue that most frequently leads people to consider the question of determinism, namely the implications of determinism for judgments of responsibility, blame, and punishment.

In our second compatibilist offering, Walter Stace provides several examples in which we find it natural to distinguish between an action's being caused and its being controlled. Pursuing a classic soft determinist strategy, Stace seeks to make plausible the distinction between these notions, thereby making room for the idea that though all of our actions are caused, some may nevertheless be relevantly within our control. If control over our actions is what is crucial to

moral responsibility, and if control is compatible with an action's being caused, then freedom and determinism may peacefully co-exist, as the compatibilist claims.

Everyone agrees that in order to be responsible for an action, a person must in some way exercise control over it. So one way of seeing the disputes within this area of philosophy is to see how different thinkers understand the relevant notion of control. Our last compatibilist, John Martin Fischer, rejects the hypothetical analysis, and seeks to replace it with the notion of guidance control. This is the sort of control that we exercise over actions when they are responsive to reasons that we endorse. We may lack what he calls regulative control-the genuine ability to choose and to do otherwise than we in fact do-and yet still possess guidance control, which is, in his book, enough to warrant attributions of responsibility.

Another approach to the dilemma of determinism-one that rejects its second premise-is found in the writings of Thomas Reid and Immanuel Kant, among others, and is represented here by the essays of Roderick Chisholm and Robert Kane. This is the libertarian position, which argues that freedom is incompatible with determinism, that determinism is false, and that we do in fact often possess the sort of freedom necessary for moral responsibility. Libertarians³ remind us that human actions, unlike other events in nature, are subject to a special kind of explanation: the actor's own reasons for acting. An uncaused action, done deliberately for some reason, would therefore be a perfectly intelligible one, and adequately explained by an account of its reasons.

Roderick Chisholm's article tackles head on perhaps the most troubling worry that besets libertarianism: the nature of the person whose choices can determine conduct but which are not themselves determined. Nothing else we know of has this sort of power. Physical things act in predictable ways and are governed by laws of cause and effect. Free human choices aren't like this. But they aren't random or purely matters of chance, either. Persons are controlling the choices they make, without in turn being necessitated to make them. Chisholm forthrightly sees the difficulty of such a position, and fans of libertarianism would do well to carefully attend to his analysis, one of whose primary virtues is to sketch just how exceptional free choices and persons are in the grand scheme of things. Philosophers and scientists are by nature skeptical of exceptions, constantly on the alert to prevent ad hoc hypotheses from being introduced to save a familiar or comforting idea. Chisholm sets the debate about libertarianism right where it should be, and forces us to ask whether the libertarian is giving us what we want (a robust sense of free will) at the expense of an occult view of the person.

Robert Kane's paper picks up directly on this theme and outlines a new version of libertarianism that takes its indeterminist element very seriously. Kane struggles to preserve a full-blooded conception of freedom compatibly with the latest scientific views of the world. Taking his cue from findings that reject thoroughgoing determinism, especially at the microphysical level, Kane seeks to locate opportunities for free will and moral responsibility within the indeterministic openings whose existence is ratified by contemporary physics.

Libertarians deny the possibility that we can have free will if determinism is true. The compatibility of free will and determinism is also denied by those who respond to the dilemma of determinism in the third way (that is, by embracing the conclusion of the dilemma, instead of trying to avoid it). This is the approach of the hard determinists; instead of abandoning determinism as the libertarians do, they jettison free will and moral responsibility. Hard determinism was the view of Baruch Spinoza and Paul Holbach, among other philosophers; of Mark Twain and Thomas Hardy, among other literary figures; and of Clarence Darrow, the famous American criminal lawyer. It is represented here by the selections from Holbach, a

seventeenth-century thinker, and Derk Pereboom, a contemporary philosopher now teaching at Cornell University.

Holbach is a typical representative of the eighteenth-century "enlightenment" period, in which philosophers were often themselves scientists inclined to find in the methods and discoveries of science the solution to ancient philosophical riddles. They also tended to be political radicals (by the standards of their time), substituting their theories of human rights for the prevailing justifications of inequalities among social classes. In neither area, philosophy or politics, were they reluctant to embrace revolutionary consequences. Holbach, for example, is uncompromising in his account of the implications of scientific explanation for human freedom.

Derk Pereboom prefers to think of himself as a hard incompatibilist, rather than a hard determinist, since he is unsure of whether determinism is true, but convinced nonetheless that determinism precludes genuine freedom, and convinced as well that the sort of freedom worth having does not exist. Pereboom presents clear and accessible arguments against both compatibilism and libertarianism, and then offers an extended discussion of the many ways in which determinism is said to threaten our moral practices and our ability to find meaning in life. Pereboom argues that the common perceptions of determinism's threatening nature are largely unfounded, and that, in some surprising cases, we can vindicate (and even better justify) certain of our moral attitudes and practices by subscribing to hard incompatibilism.

The concluding section of Part 4, entitled "Freedom and Moral Responsibility," pursues several of the issues in the free will debate. James Rachels offers us a characteristically accessible presentation of the various central issues surrounding questions of moral responsibility. He considers the most important arguments for libertarianism, and finds them each wanting. He is cautiously pessimistic about compatibilism, too. He concludes with a variety of considerations that aim to show that the hard determinist option does not pose the deep threat to morality that most thinkers believe it does.

Rachels' selection is followed by Harry Frankfurt's "Alternate Possibilities and Moral Responsibility," which challenges the widely held view that avoidability is a necessary condition of responsibility. He offers cases in which a person cannot avoid doing or choosing as he does, and yet is properly held morally responsible for his choices or actions. The piece has become a contemporary classic in the free will discussion and continues to spark vigorous debate among philosophers as to the proper role (if any) of control and avoidability in determinations of freedom and responsibility.

The next selection is Thomas Nagel's "Moral Luck," in which Nagel sets out explicitly to challenge the Kantian view of moral responsibility. As Kant saw it, even in a world as dangerous and unpredictable as our own, there is at least one thing that is fully within our control: our moral integrity. Our moral integrity is a function solely of our intending to do what we perceive to be our duty. We may fail to achieve the results we intend—that much may be out of our control. But we are in command of our intentions, and this command supplies the proper basis for assignments of moral credit and blame. Praise is properly merited for good intentions, and blame deserved for bad, precisely because such intentions are within our control.

Nagel challenges this widely held view in two ways. First, he argues that even if our intentions are fully within our control, our moral responsibility is based on other factors that are matters of luck. Suppose two drivers are speeding recklessly along a narrow road, and one driver hits and kills a pedestrian, while the other driver injures no one. Nagel argues that in such a case, we rightly charge the first driver with a graver wrong than the second, even though this disparity is based on something entirely outside of either driver's control (namely, the presence or absence

of a pedestrian along the road). Nagel also argues that even when we base assignments of praise and blame on intentions alone, the intentions one forms and acts on are themselves matters of luck. What we intend to do is partly a function of how we are raised, what circumstances we find ourselves in, and what genetic inheritance we find ourselves with. All of these are in the relevant sense "matters of luck," since we cannot be said to have controlled or determined their presence. Nagel's article seems to expose a deep problem for our ordinary notions of how responsibility and control are related. It forces our attention right back to the initial concern that defines the classic debate: how (or whether) it is possible to be a free, morally responsible person while at the same time recognizing the ineliminable role that genetics, upbringing, circumstance, and socialization have played in making you the person you are.

Our final offering is by Susan Wolf, who, in a highly original paper, methodically presents a theory with two basic parts. For one to be responsible for one's actions or their consequences, first of all, it must be the case that those actions are within the control of one's will, and second, that one's will is within the control of one's "deeper self." But that is not sufficient. Third, it must also be true that one is sane, where insanity in turn is analyzed as having unavoidably mistaken moral beliefs and values. Wolf's full theory then has a "deep self" condition supplemented by a "sanity condition," and the latter incorporates a conception of moral beliefs and their acquisition. The result is a theory that fits more comfortably with determinism should that theory just happen to be true, and which does not require what is impossible, according to Wolf, namely, that a person, to be responsible for anything, must have created her own "deeper self" from nothing.

COMPATIBILISM: THE CASE FOR DETERMINISM AND ITS COMPATIBILITY WITH THE MOST IMPORTANT SENSE OF FREE WILL

LIBERTARIANISM: THE CASE FOR FREE WILL AND ITS INCOMPATIBILITY WITH DETERMINISM

Human Freedom and the Self

RODERICK M. CHISHOLM

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'A staff moves a stone, and is moved by a hand, which is moved by a man.'

ARISTOTLE, Physics, 256a.

1. The Metaphysical Problem of human freedom might be summarized in the following way: Human beings are responsible agents; but this fact appears to conflict with a deterministic view of human action (the view that every event that is involved in an act is caused by some other event); and it also appears to conflict with an indeterministic view of human action (the

view that the act, or some event that is essential to the act, is not caused at all.) To solve the problem, I believe, we must make somewhat farreaching assumptions about the self or the agent-about the man who performs the act.

Perhaps it is needless to remark that, in all likelihood, it is impossible to say anything significant about this ancient problem that has not been said before.'

2. Let us consider some deed, or misdeed, that may be attributed to a responsible agent: one man, say, shot another. If the man was responsible for what he did, then, I would urge, what was to happen at the time of the shooting was something that was entirely up to the man himself. There was a moment at which it was true, both that he could have fired the shot and also that he could have refrained from firing it. And if this is so, then, even though he did fire it, he could have done something else instead. (He didn't find himself firing the shot 'against his will', as we say.) I think we can say, more generally, then, that if a man is responsible for a certain event or a certain state of affairs (in our example, the shooting of another man), then that event or state of affairs was brought about by some act of his, and the act was something that was in his power either to perform or not to perform.

did do, then, since they caused it, he was unable to do anything other than just what it was that he did do. It makes no difference whether the cause of the deed was internal or external; if the cause was some state or event for which the man himself was not responsible, then he was not responsible for what we have been mistakenly calling his act. If a flood caused the poorly constructed dam to break, then, given the flood and the constitution of the dam, the break, we may say, had to occur and nothing could have happened in its place. And if the flood of desire caused the weak-willed man to give in, then he, too, had to do just what it was that he did do and he was no more responsible than was the dam for the results that followed. (It is true, of course, that if the man is responsible for the beliefs and desires that he happens to have, then he may also be responsible for the things they lead him to do. But the question now becomes: is he responsible for the beliefs and desires he happens to have? If he is, then there was a time when they were within his power either to acquire or not to acquire, and we are left, therefore, with our general point.) But now if the act which he did perform was an act that was also in his power not to perform, then it could not have been caused or determined by any event that was not itself within his power either to bring about or not to bring about. For example, if what we say he did was really something that was brought about by a second man, one who forced his hand upon the trigger, say, or who, by means of hypnosis, compelled him to perform the act, then since the act was caused by the second man it was nothing that was within the power of the first man to prevent. And precisely the same thing is true, I think, if instead of referring to a second man who compelled the first one, we speak instead of the desires and beliefs which the first man happens to have had. For if what we say he did was really something that was brought about by his own beliefs and desires, if these beliefs and desires in the particular situation in which he happened to have found himself caused him to do just what it was that we say he

One may object: But surely if there were such a thing as a man who is really good, then he would be responsible for things that he would do; yet, he would be unable to do anything other than just what it is that he does do, since, being good, he will always choose to do what is best. The answer, I think, is suggested by a comment that Thomas Reid makes upon an ancient author. The author had said of Cato, 'He was good because he could not be otherwise', and Reid observes: 'This saying, if understood literally and strictly, is not the praise of Cato, but of his constitution, which was no more the work of Cato than his existence'.² If Cato was himself responsible for the good things that he did, then Cato, as Reid suggests, was such that, although

he had the power to do what was not good, he exercised his power only for that which was good.

All of this, if it is true, may give a certain amount of comfort to those who are tenderminded. But we should remind them that it also conflicts with a familiar view about the nature of God-with the view that `every St.

Thomas Aquinas expresses by saying that `every movement both of the will and of nature proceeds from God as the Prime Mover'.³ If the act of the sinner did proceed from God as the Prime Mover, then God was in the position of the second agent we just discussed, the man who forced the trigger finger, or the hypnotist, and the sinner, so-called, was not responsible for what he did. (This may be a bold assertion, in view of the history of western theology, but I must say that I have never encountered a single good reason for denying it.)

There is one standard objection to all of this and we should consider it briefly.

3. The objection takes the form of a stratagem-one designed to show that determinism (and divine providence) is consistent with human responsibility. The stratagem is one that was used by Jonathan Edwards and by many philosophers in the present century, most notably, G. E. Moore.⁴

One proceeds as follows: The expression

(a) He could have done otherwise,

it is argued, means no more nor less than

(b) If he had chosen to do otherwise, then he would have done otherwise.

(In place of `chosen', one might say `tried', `set out', `decided', `undertaken', or `willed'.)

The truth of statement (b), it is then pointed out, is consistent with determinism (and with divine providence); for even if all of the man's actions were causally determined, the man could still be such that, if he had chosen otherwise, then he would have done otherwise. What the murderer saw, let us suppose, along with his beliefs and desires, caused him to fire the shot; yet he was such that if, just then, he had chosen or decided not to fire the shot, then he would not have fired it. All of this is certainly possible. Similarly, we could say, of the dam, that the flood caused it to break and also that the dam was such that, if there had been no flood or any similar pressure, then the dam would have remained intact. And therefore, the argument proceeds, if (b) is consistent with determinism, and if (a) and (b) say the same thing, then (a) is also consistent with determinism; hence we can say that the agent could have done otherwise even though he was caused to do what he did do; and therefore determinism and moral responsibility are compatible.

Is the argument sound? The conclusion follows from the premises, but the catch, I think, lies in the first premiss-the one saying that statement (a) tells us no more nor less than what statement (b) tells us. For (b), it would seem, could be true while (a) is false. That is to say, our man might be such that, if he had chosen to do otherwise, then he would have done otherwise, and yet also such that he could not have done otherwise. Suppose, after all, that our murderer could not have chosen, or could not have decided, to do otherwise. Then the fact that he happens also to be a man such that, if he had chosen not to shoot he would not have shot, would make no difference. For if he could not have chosen not to shoot, then he could not have done anything other than just what it was that he did do. In a word: from our statement (b) above ('If he had chosen to do otherwise, then he would have done otherwise'), we cannot make an inference to (a) above ('He could have done otherwise') unless we can also assert:

(c) He could have chosen to do otherwise.

And therefore, if we must reject this third statement (c), then, even though we may be justified in asserting (b), we are not justified in asserting (a). If the man could not have chosen to do otherwise, then he would not have done otherwise-even if he was such that, if he had chosen

to do otherwise, then he would have done otherwise.

The stratagem in question, then, seems to me not to work, and I would say, therefore, that the ascription of responsibility conflicts with a deterministic view of action.

4. Perhaps there is less need to argue that the ascription of responsibility also conflicts with an indeterministic view of action-with the view that the act, or some event that is essential to the act, is not caused at all. If the act-the firing of the shot-was not caused at all, if it was fortuitous or capricious, happening so to speak out of the blue, then, presumably, no one-and nothing was responsible for the act. Our conception of action, therefore, should be neither deterministic nor indeterministic. Is there any other possibility?

5. We must not say that every event involved in the act is caused by some other event; and we must not say that the act is something that is not caused at all. The possibility that remains, therefore, is this: We should say that at least one of the events that are involved in the act is caused, not by any other events, but by something else instead. And this something else can only be the agent-the man. If there is an event that is caused, not by other events, but by the man, then there are some events involved in the act that are not caused by other events. But if the event in question is caused by the man then it is caused and we are not committed to saying that there is something involved in the act that is not caused at all.

But this, of course, is a large consequence, implying something of considerable importance about the nature of the agent or the man.

6. If we consider only inanimate natural objects, we may say that causation, if it occurs, is a relation between events or states of affairs. The dam's breaking was an event that was caused by a set of other events-the dam being weak, the flood being strong, and so on. But if a man is responsible for a particular deed, then, if what I have said is true, there is some event, or set of events, that is caused, not by other events or states of affairs, but by the agent, whatever he may be.

I shall borrow a pair of medieval terms, using them, perhaps, in a way that is slightly different from that for which they were originally intended. I shall say that when one event or state of affairs (or set of events or states of affairs) causes some other event or state of affairs, then we have an instance of transeunt causation. And I shall say that when an agent, as distinguished from an event, causes an event or state of affairs, then we have an instance of immanent causation.

The nature of what is intended by the expression 'immanent causation' may be illustrated by this sentence from Aristotle's *Physics*: 'Thus, a staff moves a stone, and is moved by a hand, which is moved by a man.' (VII, 5, 256a, 6-8) If the man was responsible, then we have in this illustration a number of instances of causation-most of them transeunt but at least one of them immanent. What the staff did to the stone was an instance of transeunt causation, and thus we may describe it as a relation between events: 'the motion of the staff caused the motion of the stone.' And similarly for what the hand did to the staff: 'the motion of the hand caused the motion of the staff'. And, as we know from physiology, there are still other events which caused the motion of the hand. Hence we need not introduce the agent at this particular point, as Aristotle does-we need not, though we may. We may say that the hand was moved by the man, but we may also say that the motion of the hand was caused the motion of certain muscles; and we may say that the motion of the muscles was caused certain events that took place within the brain. But some event, and presumably one of those that took place within the brain, was caused by the agent and not by any other events.

There are, of course, objections to this way of putting the matter; I shall consider the two

that seem to me to be most important.

7. One may object, firstly: 'If the man does anything, then, as Aristotle's remark suggests, what he does is to move the hand. But he certainly does not do anything to his brain-he may not even know that he has a brain. And if he doesn't do anything to the brain, and if the motion of the hand was caused by something that happened within the brain, then there is no point in appealing to "immanent causation" as being something incompatible with "transeunt causation"-for the whole thing, after all, is a matter of causal relations among events or states of affairs.'

The answer to this objection, I think, is this: It is true that the agent does not do anything with his brain, or to his brain, in the sense in which he does something with his hand and does something to the staff. But from this it does not follow that the agent was not the immanent cause of something that happened within his brain.

We should note a useful distinction that has been proposed by Professor A. I. Mcdennamely, the distinction between 'making something A happen' and 'doing A'. If I reach for the staff and pick it up, then one of the things that I do is just that-reach for the staff and pick it up. And if it is something that I do, then there is a very clear sense in which it may be said to be something that I know that I do. If you ask me, 'Are you doing something, or trying to do something, with the staff?', I will have no difficulty in finding an answer. But in doing something with the staff, I also make various things happen which are not in this same sense things that I do: I will make various air-particles move; I will free a number of blades of grass from the pressure that had been upon them; and I may cause a shadow to move from one place to another. If these are merely things that I make happen, as distinguished from things that I do, then I may know nothing whatever about them; I may not have the slightest idea that, in moving the staff, I am bringing about any such thing as the motion of air-particles, shadows, and blades of grass.

We may say, in answer to the first objection, therefore, that it is true that our agent does nothing to his brain or with his brain; but from this it does not follow that the agent is not the immanent cause of some event within his brain; for the brain event may be something which, like the motion of the air-particles, he made happen in picking up the staff. The only difference between the two cases is this: in each case, he made something happen when he picked up the staff; but in the one motion of the air-particles or of the shadows-it was the motion of the staff that caused the event to happen; and in the other event that took place in the brain-it was this event that caused the motion of the staff.

The point is, in a word, that whenever a man does something A, then (by 'immanent causation') he makes a certain cerebral event happen, and this cerebral event (by 'transeunt causation') makes A happen.

8. The second objection is more difficult and concerns the very concept of 'immanent causation', or causation by an agent, as this concept is to be interpreted here. The concept is subject to a difficulty which has long been associated with that of the prime mover unmoved. We have said that there must be some event A, presumably some cerebral event, which is caused not by any other event, but by the agent. Since A was not caused by any other event, then the agent himself cannot be said to have undergone any change or produced any other event (such as 'an act of will' or the like) which brought A about. But if, when the agent made A happen, there was no event involved other than A itself, no event which could be described as making A happen, what did the agent's causation consist of? What, for example, is the difference between A's just happening, and the agent's causing A to happen? We cannot attribute the difference to any event that took place within the agent. And so far as the event A itself is concerned, there would seem

to be no discernible difference. Thus Aristotle said that the activity of the prime mover is nothing in addition to the motion that it produces, and Suarez said that 'the action is in reality nothing but the effect as it flows from the agent'.⁶ Must we conclude, then, that there is no more to the man's action in causing event A than there is to the event A's happening by itself? Here we would seem to have a distinction without a difference-in which case we have failed to find a *via media* between a deterministic and an indeterministic view of action.

The only answer, I think, can be this: that the difference between the man's causing A, on the one hand, and the event A just happening, on the other, lies in the fact that, in the first case but not the second, the event A was caused and was caused by the man. There was a brain event A; the agent did, in fact, cause the brain event; but there was nothing that he did to cause it.

This answer may not entirely satisfy and it will be likely to provoke the following question: 'But what are you really adding to the assertion

that A happened when you utter the words "The agent caused A to happen"?' As soon as we have put the question this way, we see, I think, that whatever difficulty we may have encountered is one that may be traced to the concept of causation generally-whether 'immanent' or 'transeunt'. The problem, in other words, is not a problem that is peculiar to our conception of human action. It is a problem that must be faced by anyone who makes use of the concept of causation at all; and therefore, I would say, it is a problem for everyone but the complete indeterminist.

For the problem, as we put it, referring just to 'immanent causation', or causation by an agent, was this: 'What is the difference between saying, of an event A, that A just happened and saying that someone caused A to happen?' The analogous problem, which holds for 'transeunt causation', or causation by an event, is this: 'What is the difference between saying, of two events A and B, that B happened and then A happened, and saying that B's happening was the cause of A's happening?' And the only answer that one can give is in the one case the agent was the cause of A's happening and in the other case event B was the cause of A's happening. The nature of transeunt causation is no more clear than is that of immanent causation.

9. But we may plausibly say-and there is a respectable philosophical tradition to which we may appeal-that the notion of immanent causation, or causation by an agent, is in fact more clear than that of transeunt causation, or causation by an event, and that it is only by understanding our own causal efficacy, as agents, that we can grasp the concept of cause at all. Hume may be said to have shown that we do not derive the concept of cause from what we perceive of external things. How, then, do we derive it? The most plausible suggestion, it seems to me, is that of Reid, once again: namely that 'the conception of an efficient cause may very probably be derived from the experience we have had ... of our own power to produce certain effects'. If we did not understand the concept of immanent causation, we would not understand that of transeunt causation.

10. It may have been noted that I have avoided the term 'free will' in all of this. For even if there is such a faculty as 'the will', which somehow sets our acts agoing, the question of freedom, as John Locke said, is not the question 'whether the will be free; it is the question 'whether a man be free'.⁸ For if there is a 'will' as a moving faculty, the question is whether the man is free to will to do these things that he does will to do-and also whether he is free not to will any of those things that he does will to do, and, again, whether he is free to will any of those things that he does not will to do. Jonathan Edwards tried to restrict himself to the question-'Is the man free to do what it is that he wills?' but the answer to this question will not tell us whether the man is responsible for what it is that he does will to do. Using still another pair of medieval

terms, we may say that the metaphysical problem of freedom does not concern the *actus imperatus*; it does not concern the question whether we are free to accomplish whatever it is that we will or set out to do; it concerns the *actus elicited*, the question whether we are free to will or to set out to do those things that we do will or set out to do.

11. If we are responsible, and if what I have been trying to say is true, then we have a prerogative which some would attribute only to God: each of us, when we act, is a prime mover unmoved. In doing what we do, we cause certain events to happen, and nothing or no one causes us to cause those events to happen.

12. If we are thus prime movers unmoved and if our actions, or those for which we are responsible, are not causally determined, then they are not causally determined by our desires. And this means that the relation between what we want or what we desire, on the one hand, and what it is that we do, on the other, is not as simple as most philosophers would have it.

We may distinguish between what we might call the 'Hobbiist approach' and what we might call the 'Kantian approach' to this question. The Hobbiist approach is the one that is generally accepted at the present time, but the Kantian

approach, I believe, is the one that is true. According to Hobbism, if we know, of some man, what his beliefs and desires happen to be and how strong they are, if we know what he feels certain of, what he desires more than anything else, and if we know the state of his body and what stimuli he is being subjected to, then we may deduce, logically, just what it is that he will do or, more accurately, just what it is that he will try, set out, or undertake to do. Thus Professor Melden has said that 'the connection between wanting and doing is logical'.⁹ But according to the Kantian approach to our problem, and this is the one that I would take, there is no such logical connection between wanting and doing, nor need there even be a causal connection. No set of statements about a man's desires, beliefs, and stimulus situation at any time implies any statement telling us what the man will try, set out, or undertake to do at that time. As Reid put it, though we may 'reason from men's motives to their actions and, in many cases, with great probability', we can never do so 'with absolute certainty'.⁽¹⁾

This means that, in one very strict sense of the terms, there can be no science of man. If we think of science as a matter of finding out what laws happen to hold, and if the statement of a law tells us what kinds of events are caused by what other kinds of events, then there will be human actions which we cannot explain by subsuming them under any laws. We cannot say, 'It is causally necessary that, given such and such desires and beliefs, and being subject to such and such stimuli, the agent will do so and so'. For at times the agent, if he chooses, may rise above his desires and do something else instead.

But all of this is consistent with saying that, perhaps more often than not, our desires do exist under conditions such that those conditions necessitate us to act. And we may also say, with Leibniz, that at other times our desires may 'incline without necessitating'.

13. Leibniz's phrase presents us with our final philosophical problem. What does it mean to say that a desire, or a motive, might 'incline without necessitating'? There is a temptation, certainly, to say that 'to incline' means to cause and that 'not to necessitate' means not to cause, but obviously we cannot have it both ways.

Nor will Leibniz's own solution do. In his letter to Coste, he puts the problem as follows: 'When a choice is proposed, for example to go out or not to go out, it is a question whether, with all the circumstances, internal and external, motives, perceptions, dispositions, impressions, passions, inclinations taken together, I am still in a contingent state, or whether I am necessitated to make the choice, for example, to go out; that is to say, whether this proposition true and

determined in fact, In all these circumstances taken together I shall choose to go out, is contingent or necessary." 1 Leibniz's answer might be put as follows: in one sense of the terms 'necessary' and 'contingent', the proposition 'In all these circumstances taken together I shall choose to go out', may be said to be contingent and not necessary, and in another sense of these terms, it may be said to be necessary and not contingent. But the sense in which the proposition may be said to be contingent, according to Leibniz, is only this: there is no logical contradiction involved in denying the proposition. And the sense in which it may be said to be necessary is this: since 'nothing ever occurs without cause or determining reason', the proposition is causally necessary. 'Whenever all the circumstances taken together are such that the balance of deliberation is heavier on one side than on the other, it is certain and infallible that that is the side that is going to win out'. But if what we have been saying is true, the proposition 'In all these circumstances taken together I shall choose to go out', may be causally as well as logically contingent. Hence we must find another interpretation for Leibniz's statement that our motives and desires may incline us, or influence us, to choose without thereby necessitating us to choose.

Let us consider a public official who has some moral scruples but who also, as one says, could be had. Because of the scruples that he does have, he would never take any positive steps to receive a bribe—he would not actively solicit one. But his morality has its limits and he is also such that, if we were to confront him

with a fait accompli or to let him see what is about to happen (\$10,000 in cash is being deposited behind the garage), then he would succumb and be unable to resist. The general situation is a familiar one and this is one reason that people pray to be delivered from temptation. (It also justifies Kant's remark: 'And how many there are who may have led a long blameless life, who are only fortunate in having escaped so many temptations'.)¹² Our relation to the misdeed that we contemplate may not be a matter simply of being able to bring it about or not to bring it about. As St. Anselm noted, there are at least four possibilities. We may illustrate them by reference to our public official and the event which is his receiving the bribe, in the following way: (i) he may be able to bring the event about himself (*facere esse*), in which case he would actively cause himself to receive the bribe; (ii) he may be able to refrain from bringing it about himself (*non facere esse*), in which case he would not himself do anything to insure that he receive the bribe; (iii) he may be able to do something to prevent the event from occurring (*facere non esse*), in which case he would make sure that the \$10,000 was not left behind the garage; or (iv) he may be unable to do anything to prevent the event from occurring (*non facere non esse*), in which case, though he may not solicit the bribe, he would allow himself to keep it.¹³ We have envisaged our official as a man who can resist the temptation to (i) but cannot resist the temptation to (iv): he can refrain from bringing the event about himself, but he cannot bring himself to do anything to prevent it.

Let us think of 'inclination without necessitation', then, in such terms as these. First we may contrast the two propositions:

- (1) He can resist the temptation to do something in order to make A happen;
- (2) He can resist the temptation to allow A to happen (i.e. to do nothing to prevent A from happening).

We may suppose that the man has some desire to have A happen and thus has a motive for making A happen. His motive for making A happen, I suggest, is one that necessitates provided that, because of the motive, (1) is false; he cannot resist the temptation to do something in order to make A happen. His motive for making A happen is one that inclines provided that,

because of the motive, (2) is false; like our public official, he cannot bring himself to do anything to prevent A from happening. And therefore we can say that this motive for making A happen is one that inclines but does not necessitate provided that, because of the motive, (1) is true and (2) is false; he can resist the temptation to make it happen but he cannot resist the temptation to allow it to happen.

NOTES

1. The general position to be presented here is suggested in the following writings, among others: Aristotle, *I Eudemian Ethics*, bk. ii ch. 6, *Nicomachean Ethics*, bk. iii, ch. 1-5; Thomas Reid, *Essays on the Active Powers of Man*. C. A. Campbell, 'Is "Free Will" a Pseudo-Problem?' *Mind*, 1951, pp. 441-65, Roderick M. Chisholm, 'Responsibility and Avoidability', and Richard Taylor, 'Determination and the Theory of Agency', in *Determinism and Freedom in the Age of Modern Science*, ed. Sidney Hook (New York, 1958).

2. Thomas Reid, *Essays on the Active Powers of Man*, essay iv. ch. 4 (Works, 600).

3. *Summa Theologica*, First Part of the Second Part, qu. vi ('On the Voluntary and Involuntary').

4. Jonathan Edwards, *Freedom of the Will* (New Haven, 1957); G. E. Moore, *Ethics* (Home University Library, 1912). ch. 6.

5. A. I. Melden, *Free Action* (London, 1961), especially ch. 3. Mr. Melden's own views, however, are quite the contrary of those that are proposed here.

6. Aristotle, *Physics*, bk. iii. ch. 3; Suarez, *Disputations Metaphysicae*, Disputation 18, s. 10.

7. Reid, Works. 524.

8. Essay concerning Human Understanding, bk. ii, ch. 21.

9. Melden, 166.

10. Reid, Works, 608, 612.

11. 'Lettre a Mr. Coste de la Necessite et de la Contingence' (1707) in *Opera Philosophica*, ed. Erdmann, pp. 447-9.

12. In the Preface to the *Metaphysical Elements of Ethics*, in Kant's *Critique of Practical Reason and Other Works on the Theory of Ethics*, ed. T. K. Abbott (London, 1959), 303.

13. Cf. D. P. Henry, 'Saint Anselm's De "Grammatico"', *Philosophical Quarterly*, x (1960), 115-26. St. Anselm noted that (i) and (iii), respectively, may be thought of as forming the upper left and the upper right corners of a square of opposition, and (ii) and (iv) the lower left and the lower right.

Free Will: Ancient Dispute, New Themes

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"There is a disputation that will continue till mankind are raised from the dead, between the necessitarians and the partisans of free will." These are the words of twelfth-century Persian poet, Jalalu'ddin Rumi. The problem of free will and necessity (or determinism), of which Rumi speaks, has puzzled the greatest minds for centuries-including famous philosophers, literary figures, theologians, scientists, legal theorists, and psychologists as well as many ordinary people. It has affected and been affected by both religion and science.

In his classic poem, *Paradise Lost*, John Milton describes the angels debating how some

of them could have sinned of their own free wills given that God had made them intelligent and happy.' Why would they have done it? And why were they responsible for it rather than God, since God had made them the way they were and had complete foreknowledge of what they would do? While puzzling over such questions, even the angels, Milton tells us, were "in Endless Mazes lost" (not a comforting thought for us humans). On the scientific front, issues about free will lead us to ask about the nature of the physical universe and our place in it (are we determined by physical laws and movements of the atoms?), about human psychology and the springs of action (can our actions be predicted by those who know our psychology?), about social conditioning, moral responsibility, crime and punishment, right and wrong, good and evil, and much more.

To dive into these questions, the best way to begin is with the idea of freedom itself. Nothing could be more important than freedom to the modern world. All over the globe, the trend (often against resistance) is toward societies that are more free. But why do we want freedom? The simple, and not totally adequate, answer is that to be more free is to have the capacity and opportunity to satisfy more of our desires. In a free society we can walk into a store and buy almost anything we want. We can choose what movies to see, what music to listen to, whom to vote for.

But these are what you might call surface freedoms. What is meant by free will runs deeper than these everyday freedoms. To see how, suppose we had maximal freedom to make such choices to satisfy our desires and yet the choices we actually made were manipulated by others, by the powers-that-be. In such a world we would have a great deal of everyday freedom to do whatever we wanted, yet our free will would be severely limited. We would be free to act or choose as we will, but would not have the ultimate say about what it is that we will. Someone else would be pulling the strings, not by coercing us against our wishes, but by manipulating us into having the wishes they wanted us to have.

You may be thinking that, to some extent, we do live in such a world, where we are free to make numerous choices, but are manipulated into making many of our choices by advertising, television, public relations, spin doctors, salespersons, marketers, and sometimes even by friends, parents, relatives, rivals, or enemies. One indication of how important free will is to us is that people generally feel revulsion at such manipulation. When people find out that what they thought were their own wishes were actually manipulated by others who wanted them to choose in just the way they did, they feel demeaned. Such situations are demeaning because we realize we were not our own persons; and having free will is about being your own person.

The problem is brought out in a striking way by twentieth-century utopian novels, such as Aldous Huxley's *Brave New World* and B. F. Skinner's *Walden Two*.² In the fictional societies described in these famous works, people can have and do what they will or choose, but only to the extent that they have been conditioned by behavioral engineers or neuro-chemists to will or choose what they can have and do. In *Brave New World*, the lower-echelon workers are under the influence of powerful drugs so that they do not dream of things they cannot have. They are quite content to play miniature golf all weekend. They can do what they want, though their wants are meager and controlled by drugs.

The citizens of Skinner's *Walden Two* have a richer existence than the workers of *Brave New World*. Yet their desires and purposes are also covertly controlled, in this case by behavioral engineers. *Walden Two*-ers live collectively in a kind of rural commune; and because they share duties of farming and raising children, they have plenty of leisure. They pursue arts, sciences, crafts, engage in musical performances, and enjoy what appears to be a pleasant

existence. The fictional founder of Walden Two, a fellow named Frazier, forthrightly says that their pleasant existence is brought about by the fact that, in his community, persons can do whatever they want or choose because they have been behaviorally conditioned since childhood to want and choose only what they can have and do. In other words, they have maximal surface freedom of action and choice (they can choose or do anything they want), but they lack a deeper freedom of the will because their desires and purposes are created by their behavioral conditioners or controllers. Their wills are not of "their own" making. Indeed, what happens in Walden Two is that their surface freedom to act and choose as they will is maximized by minimizing the deeper freedom to have the ultimate say about what they will.

Thus Frazier can say that Walden Two "is the freest place on earth" (p. 297), because he has surface freedoms in mind. For there is no coercion in Walden Two and no punishment because no one has to be forced to do anything against his or her will. The citizens can have anything they want because they have been conditioned not to want anything they cannot have. As for the deeper freedom, or free will, it does not exist in Walden Two, as Frazier himself admits (p. 257). But this is no loss, according to Frazier. Echoing Walden Two's author, B. F. Skinner (a foremost defender of behaviorism in psychology), Frazier thinks the deeper freedom of the will is an illusion in the first place. We do not have it anyway, inside or outside Walden Two. In our ordinary lives, he argues, we are just as much the products of upbringing and social conditioning as the citizens of Walden Two, though we may delude ourselves into thinking otherwise. The difference is that, unlike Walden Two, our everyday conditioning is often haphazard, incompetent, and harmful.

Why then, Skinner asks, reject the maximal surface freedom and happiness of Walden Two for a deeper freedom of the will that is something we do not and cannot have anyway? Along with many other scientists, he thinks the idea that we could be ultimate determiners of our own ends or purposes (which is what the deeper freedom of the will would require) is an impossible ideal that cannot fit into the modern scientific picture of the world. To have such freedom, we would have to have been the original creators of our own wills-causes of ourselves. But if we trace the psychological springs of action back further and further to childhood, we find that we were less free back then, not more, and more subject to conditioning. We thus delude ourselves into

thinking that we have sacrificed some real (deeper) freedom for the happiness of Walden Two. Rather we have gained a maximum amount of the only kind of freedom we really can have (surface freedom), while giving up an illusion (free will).

Seductive as these arguments may be, there are many people (myself included) who continue to believe that something important is missing in Walden Two and that the deeper freedom is not a mere illusion. Such persons want to be the ultimate designers of their own lives as Frazier was for the lives of Walden Two. They want to be the creators, as he was, not the pawns-at least for their own lives. What they long for is what was traditionally meant by "free will."

Here is yet another way of looking at it. Free will in this deeper sense is also intimately related to notions of moral responsibility, blameworthiness, and praiseworthiness. Suppose a young man is on trial for an assault and robbery in which his victim was beaten to death. Let us say we attend his trial on a daily basis. At first, our thoughts of the young man are filled with anger and resentment. But as we listen daily to how he came to have such a mean character and perverse motives-a sordid story of parental neglect, child abuse, sexual abuse, bad role models-some of our resentment against the young man is shifted over to the parents and others

who abused and influenced him. We begin to feel angry with them as well as him. Yet we aren't quite ready to shift all of the blame away from the young man himself. We wonder whether some residual responsibility may not belong to him. Our questions become: To what extent is he responsible for becoming the sort of person he now is? Was it all a question of bad parenting, societal neglect, social conditioning, and the like, or did he have any role to play in it?

These are crucial questions about free will, and about what may be called ultimate responsibility. We know that parenting and society, genetic makeup and upbringing, have an influence on what we become and what we are. But were these influences entirely determining or did they "leave anything over" for us to be responsible for? That's what we wanted to know about the young man. The question of whether he is merely a victim of his bad circumstances or has some residual responsibility for being what he is depends on whether these other factors were or were not entirely determining.³

Turning this around, if there were factors or circumstances that entirely determined what he did, then to be ultimately responsible, he would have had to be responsible to some degree for some of those factors by virtue of earlier acts through which he formed his present character. As the philosopher Aristotle put it centuries ago, if a man is responsible for the wicked acts that flow from his character, then he must at one time in the past have been responsible for forming the character from which these acts flow. But, of course, if all of our choices and actions were entirely determined by prior circumstances, we would have had to be responsible to some degree for some of these earlier circumstances by still earlier acts of ours, and so on indefinitely backward in time—an impossibility for finite creatures like ourselves. At some point, if we are to be ultimately responsible for being what we are, there must be acts in our life histories in which parenting and society, genetic make-up, and other factors did not completely determine how we acted, but left something over for us to be responsible for then and there. This is why many people have thought that the deeper freedom of the will is not compatible with being completely determined by the past. Surface freedoms (to do or choose what we will) may be compatible with determinism, but free will does not seem to be (as Skinner himself realized).

If

Yet such thoughts only lead to a further problem that has haunted free will debates for centuries: If this deeper freedom of the will is not compatible with determinism, it does not seem to be compatible with indeterminism either. An event that is undetermined might occur or might not occur, given the entire past. (A determined event must occur, given the entire past.) Thus, whether or not an undetermined event actually occurs, given its past, is a matter of chance. But chance events occur spontaneously and are not under the control of anything, hence not under the control of agents. How then could they be free and responsible actions? If, for example, a choice occurred by virtue of a quantum jump or other undetermined event in your brain, it would seem a fluke or accident rather than a responsible choice. Undetermined events in the brain or body, it seems, would inhibit or interfere with freedom, occurring spontaneously and not under our control. They would turn out to be a nuisance or perhaps a curse, like epilepsy rather than an enhancement of our freedom.

Or look at the problem in another way that goes a little deeper. If my choice is really undetermined, that means I could have made a different choice given exactly the same past right up to the moment when I did choose. This is what indeterminism and the denial of determinism mean: exactly the same past, different outcomes. Imagine, for example, that I had been deliberating about where to spend my vacation, in Hawaii or Colorado, and after much thought and deliberation had decided I preferred Hawaii, and chose it. If the choice was undetermined,

then exactly the same deliberation, the same thought processes, the same beliefs, desires, and other motives not a sliver of difference—that led to my favoring and choosing Hawaii over Colorado, might by chance have resulted in my choosing Colorado instead. That is very strange. If such a thing happened it would seem a fluke or accident, like that quantum jump in the brain just mentioned, not a rational choice. Because I had come to favor Hawaii and was about to choose it, when by chance I chose Colorado, I would wonder what went wrong in my brain and perhaps consult a neurologist.

For reasons such as these, people have argued that undetermined free choices would be "arbitrary," "capricious," "random," "irrational," "uncontrolled," "inexplicable," or merely "matters of luck or chance," not really free and responsible choices at all. If free will is not compatible with determinism, it does not seem to be compatible with indeterminism either.

These charges are powerful ones and defenders of free will over the centuries have made extraordinary claims attempting to respond to them. Free will does require indeterminism, these defenders have said. But it cannot merely be indeterminism or chance. Some "extra factors" must be involved in free will that go beyond ordinary scientific or causal understanding. Immanuel Kant, for example, insisted that we can't explain free will in scientific and psychological terms. To account for it we have to appeal to the agency of what he called a "noumenal self" outside space and time that could not be studied in scientific terms.⁴ Others have appealed to what Nobel physiologist John Eccles calls a "transempirical power center," which would intervene in the brain, filling the causal gaps left by indeterminism or chance.⁵ Still others have appealed to a special kind of agent-causation—or, as Roderick Chisholm has called it, "immanent causation"—that cannot be explained in terms of the ordinary scientific modes of causation in terms of events or occurrences. Where all prior events, both physical and mental, leave a choice or action undetermined, the agent- or immanent cause determines it, but cannot be determined in turn because it is not an event. The agent-cause is, in Chisholm's words, a "prime mover unmoved."⁶

Such unusual stratagems are common among defenders of an indeterminist free will (who often nowadays are called "incompatibilists" because they believe that free will is not compatible with determinism and "libertarians" because they believe in addition that free will is not an illusion). But these unusual stratagems, such as noumenal selves, transempirical power centers, and agent- or immanent causes, have unfortunately reinforced the view, now widespread among philosophers and scientists, that traditional notions of free will requiring indeterminism are mysterious and have no place in the modern scientific picture of the world. Such libertarian stratagems, to their critics, are reminiscent of the old debates about vital forces in the biology of the nineteenth century, where obscure forces were postulated to explain what otherwise could not be explained about living things. They remind us of the Arkansas farmer when he first saw an automobile. He listened intently to the explanation of how the internal combustion engine worked, and nodded in agreement, but insisted on looking under the hood anyway because, as he said, "there must be a horse in there somewhere."

Thus, defenders of a nondeterminist free will are faced with a dilemma that was expressed by philosopher Thomas Hobbes at the beginning of the modern era. When trying to explain free will, these incompatibilist or libertarian defenders tend to fall either into "confusion" or "emptiness"—the confusion of identifying free will with indeterminism or the emptiness of mysterious accounts of agency in terms of noumenal selves, transempirical power centers, non-occurrent or agent-causes, or other stratagems whose operations remain obscure and unexplained. What is needed to escape this dilemma is some new thinking about how free will can be reconciled with indeterminism and how it might fit into the modern scientific picture of

the world, without appealing to extra factors that have made it seem so mysterious. In the remainder of this essay, I want to suggest some new ways of thinking about this problem and about free will generally, which may stir you to do likewise.⁷

III

The first thing to note is that indeterminism does not have to be a factor in all acts done "of our own free wills." Not all of them have to be undetermined. Frequently in everyday life we act from existing motives without having to think or deliberate about what to do. At such times, we may very well be determined by our existing characters and motives. Yet we may also at such times be acting "of our own free wills" to the extent that we formed our present characters and motives (our own wills) by earlier choices or actions that were not themselves determined. Recall again Aristotle's claim that if a man is responsible for the wicked acts that flow from his character, he must at one time in the past have been responsible for forming the character from which these acts flow. Not all choices or acts done "of our own free wills" have to be undetermined, but only those choices or acts in our lifetimes by which we made ourselves into the kinds of persons we are. Let us call these "self-forming choices or actions" or SFAs.

I believe that such undetermined selfforming choices and actions (SFAs) occur at those difficult times of life when we are torn between competing visions of what we should do or become, and that they are more frequent than we think. Perhaps we are torn between doing the moral thing or acting from ambition, or between powerful present desires and long-term goals, or we are faced with difficult tasks for which we have aversions. In all such cases, we are faced with competing motivations and have to make an effort to overcome temptation to do something else we also strongly want. At such times, there is tension and uncertainty in our minds about what to do. I suggest that this is reflected in appropriate regions of our brains by movement away from thermodynamic equilibrium—in short, a kind of stirring up of chaos in the brain that makes it sensitive to microindeterminacies at the neuronal level. The uncertainty and inner tension we feel at such soulsearching moments of self-formation would thus be reflected in the indeterminacy of our neural processes themselves. What is experienced personally as uncertainty corresponds physically to the opening of a window of opportunity that temporarily screens off complete determination by influences of the past. (By contrast, when we act from predominant motives or settled dispositions, the uncertainty or indeterminacy is muted. If it did play a role in such cases, it would be a mere nuisance or fluke, as critics suggest, like the choice of Colorado when we favored Hawaii.)

When we do decide under such conditions of uncertainty, the outcome is not determined because of the preceding indeterminacy—and yet it can be willed (and hence rational and voluntary) either way owing to the fact that, in such selfformation, the agents' prior wills are divided by conflicting motives. Consider a businesswoman who faces a conflict of this kind. She is on the way to a business meeting important to her career when she observes an assault taking place in an alley. An inner struggle ensues between her moral conscience telling her to stop and call for help, and her career ambitions telling her she cannot miss this meeting. She has to make an effort of will to overcome the temptation to go on to her meeting. If she overcomes this temptation, it will be the result of her effort, but if she fails, it will be because she did not allow her effort to succeed. And this is

because, while she wanted to overcome temptation, she also wanted to fail, for quite different and incommensurable reasons. When we, like the businesswoman, decide in such circumstances, and the indeterminate efforts we are making become determinate choices, we make one set of competing reasons or motives prevail over the others then and there by deciding.

Now let us add a further piece to the puzzle. Just as indeterminism does not necessarily undermine rationality and voluntariness, so indeterminism, in and of itself, does not necessarily undermine control and responsibility. Suppose you are trying to think through a difficult problem, say a mathematical problem, and there is some indeterminacy in your neural processes complicating the task—a kind of chaotic background. It would be like trying to concentrate and solve a problem with background noise or distraction. Whether you are going to succeed in solving the mathematical problem is uncertain and undetermined because of the distracting indeterministic neural noise. Yet, if you concentrate and solve the problem nonetheless, we have reason to say you did it and are responsible for it even though it was undetermined whether you would succeed. The distracting neural noise would have been an obstacle that you overcame by your effort.

There are numerous other examples supporting this point, where indeterminism functions as an obstacle to success without precluding responsibility. Consider an assassin who is trying to shoot the prime minister, but might miss because of some undetermined events in his nervous system that may lead to a jerking or wavering of his arm. If the assassin does succeed in hitting his target, despite the indeterminism, can he be held responsible? The answer is obviously yes because he intentionally and voluntarily succeeded in doing what he was trying to do—kill the prime minister. Yet his action, killing the prime minister, was undetermined. One might even say "he got lucky" in killing the prime minister, because there was a chance he might have missed. Yet, for all that, he did kill the prime minister and was responsible for it.

Here is another example: A husband, while arguing with his wife, in a fit of rage swings his arm down on her favorite glass-top table, intending to break it. Again, we suppose that some indeterminism in the nerves of his arm makes the momentum of his swing indeterminate so that it is literally not determined whether the table will break right up to the moment when it is struck. Whether the husband breaks the table or not is undetermined and yet he is clearly responsible if he does break it. (It would be a poor excuse for him to say to his wife "chance did it, not me" or "it wasn't my doing; it happened by chance." She would not be impressed.)

To be sure, such examples—of the mathematical problem, the assassin, and the husband—do not amount to genuine exercises of free will in "self-forming actions" or SFAs, such as the businesswoman's, where the wills of the agents are divided between conflicting motives. The businesswoman wants to do the right thing and help the victim, but she also wants to go on to her meeting. By contrast, the will of the assassin is not equally divided. He wants to kill the prime minister, but does not also want to fail. (If his conscience bothered him and he was undecided about what to do up to the last minute, that would be another matter. Then his choice would be a self-forming action or SFA, like the businesswoman's. But such was not the case.) Thus, if the assassin fails to hit his target, it will be merely by chance or as a fluke, not voluntarily (and so also for the husband and mathematical problemsolver). Cases such as the assassin, husband, and mathematical problem-solver are therefore not all that we want. Yet they are a step in the right direction because they show that indeterminism does not necessarily rule out action and responsibility, any more than it necessarily rules out rationality and voluntariness. To go further, we have to dig more deeply and add some further ideas.

IV

Let us imagine in cases of self-forming choices, like the businesswoman's, where there is conflict in the will, that the indeterministic noise that is providing an obstacle to her overcoming temptation (and stopping to help the victim) is not coming from an external source, but is coming from her own will, because she also deeply desires to do the opposite (go on to her meeting).

Imagine

that in such conflicting circumstances, two competing (recurrent) neural networks are involved. (These are complex networks of interconnected neurons in the brain circulating impulses in feedback loops that are generally involved in highlevel human cognitive processing.⁸) The input of one of these networks is coming from the woman's desires and motives for stopping to help the victim. If the network reaches a certain activation threshold (the simultaneous firing of a complex set of "output" neurons), that would represent her choice to help. For the competing network, the inputs are her ambitious motives for going on to her meeting, and its reaching an activation threshold would represent the choice to go on. (If one network activates, the other will be inhibited and the contrary choice will not be made.)

Now imagine further that these two competing networks are connected so that the indeterministic noise that is an obstacle to her making one of the choices is coming from her desire to make the other. Thus, as suggested for selfforming choices or SFAs, the indeterminism arises from a tensioncreating conflict in the will. In such circumstances, when either of the pathways "wins" (i.e., reaches an activation threshold, which amounts to choice), it will be like the agent's solving the mathematical problem by overcoming the indeterministic background noise generated by the other. And just as we could say, when you solved the mathematical problem by overcoming the distracting noise through your effort, that you did it and are responsible for it, so one can say this as well, I would argue, in the present case, whichever one is chosen. The neural pathway through which she succeeds in reaching a choice threshold will have overcome the obstacle in the form of indeterministic noise coming from the other pathway.

Note that, in these circumstances, the choices either way will not be "inadvertent," "accidental," "capricious," or "merely random," because they will be willed by the woman either way, when they are made, and done for reasons either way (moral convictions if she turns back, ambitious motives if she goes on) which she then and there endorses. And these are the conditions usually required to say something is done "on purpose," rather than accidentally, capriciously, or merely by chance. Moreover, these conditions taken together (that she wills it, and does it for reasons, and could have done otherwise willingly and for reasons) rule out each of the normal motives we have for saying that agents act, but do not have control over their actions (coercion, constraint, inadvertence, mistake, and control by others). None of these obtain in the businesswoman's case. She is not coerced (no one is holding a gun to her head), not physically constrained or disabled, not forced or controlled by others; nor does she act inadvertently or by mistake, but on purpose either way, as just noted.

Of course, with "self-forming" choices of these kinds, agents cannot control or determine which choice outcome will occur before it occurs or the outcomes would be predetermined after all. (That would be like deciding beforehand what you are going to decide.) But it does not follow that, because one does not control or determine which of a set of outcomes is going to occur before it occurs, one does not control which of them occurs, when it occurs. When the above conditions for selfforming choices are satisfied, agents exercise control over their future lives then and there by deciding. Indeed, they have what may be called "plural voluntary control" in the following sense: Agents have plural voluntary control over a set of options (stopping to help or going on to a meeting) when they are able to bring about whichever of the options they will, when they will to do so, for the reasons they will to do so, on purpose rather than by mistake or accident, without being coerced or compelled in doing so, or otherwise controlled by other agents or mechanisms. We have seen that each of these conditions can be satisfied in cases of SFAs, like the businesswoman's, despite the indeterminism involved.' These conditions of

plural voluntary control may be summed by saying, as people often do, that the agents can choose either way "at will." ("Plural" in "plural voluntary control" means "more-than-one-way" and "voluntary" means "in accordance with one's will.")

Note also that this account of self-forming choices amounts to a kind of "doubling" of the mathematical problem. It is as if an agent faced

with such a choice is trying or making an effort to solve two cognitive problems at once, or to complete two competing (deliberative) tasks at once in our example, to make a moral choice and to make a conflicting self-interested choice (corresponding to the two competing neural networks involved). Each task is being thwarted by the indeterminism coming from the other, so it might fail. But if it succeeds, then the agents can be held responsible because, as in the case of solving the mathematical problem, they will have succeeded in doing what they were knowingly and willingly trying to do. Recall again the cases of the assassin and the husband. Owing to indeterminacies in their neural pathways, the assassin might miss his target or the husband fail to break the table. But if they succeed, despite the probability of failure, they are responsible, because they will have succeeded in doing what they were trying to do.

And so it is, I suggest, with self-forming choices, except that in the case of self-forming choices, whichever way the agents choose, they will have succeeded in doing what they were trying to do because they were simultaneously trying to make both choices, and one is going to succeed. Their failure to do one thing is not a mere failure, but a voluntary succeeding in doing the other. Does it make sense to talk about the agent's trying to do two competing things at once in this way, or to solve two cognitive problems at once? Well, we know that the brain is a parallel processor; it can simultaneously process different kinds of information relevant to tasks such as perception or recognition through different neural pathways. Such a capacity, I believe, is essential to the exercise of free will.

In cases of self-formation (SFAs), agents are simultaneously trying to resolve plural and competing cognitive tasks. They are, as we say, of two minds. Yet they are not two separate persons. They are not dissociated from either task. The businesswoman who wants to go back to help the victim is the same ambitious woman who wants to go to her meeting and make a sale. She is a complex creature, torn inside by different visions of who she is and what she wants to be, as we all are from time to time. But this is the kind of complexity needed for genuine self-formation and free will. And when she succeeds in doing one of the things she is trying to do, she will endorse that as her resolution of the conflict in her will, voluntarily and intentionally, not by accident or mistake.

V

Yet it is still hard to shake the intuition that if choices are undetermined, they must happen merely by chance-and so must be "random," "capricious," "uncontrolled," "irrational," "inexplicable," and all the other things charged. I do not deny the powerful hold such intuitions have upon us. They are among the reasons why free will continues to be such a deep problem, even for those who want to believe in it. But the very fact that it has been such a problem for so long should also suggest that we cannot take ordinary intuitions about free will at face value without questioning them. If we are ever going to understand it, we will likely have to break old habits of thought and learn to think in new ways.

The first step in doing this is to question the intuitive connection in most people's minds between "indeterminism's being involved in something" and "its happening merely as a matter of chance or luck." "Chance" and "luck" are terms of ordinary language that carry the connotation of "it's out of my control." So using them already begs certain questions, whereas

"indeterminism" is a technical term that merely precludes deterministic causation, though not causation altogether. Indeterminism is consistent with non-deterministic or probabilistic causation, where the outcome is not inevitable. It is therefore a mistake (alas, one of the most common in debates about free will) to assume that "undetermined" means "uncaused."

Another source of misunderstanding is this: Because the outcome of the businesswoman's effort (the choice) is undetermined up to the last minute, we may have the image of her first making an effort to overcome temptation (to go on to her meeting) and then at the last instant "chance taking over" and deciding the issue for her. But this image is misleading. On the view just described, one cannot separate the

indeterminism and the effort of will, so that first the effort occurs followed by chance or luck (or vice versa). One must think of the effort and the indeterminism as fused; the effort is indeterminate and the indeterminism is a property of the effort, not something separate that occurs after or before the effort. The fact that the effort has this property of being indeterminate does not make it any less the woman's effort. The complex recurrent neural network that realizes the effort in the brain is circulating impulses in feedback loops and there is some indeterminacy in these circulating impulses. But the whole process is her effort of will and it persists right up to the moment when the choice is made. There is no point at which the effort stops and chance "takes over." She chooses as a result of the effort, even though she might have failed. Similarly, the husband breaks the table as a result of his effort, even though he might have failed because of the indeterminacy. (That is why his excuse-"chance broke the table, not me"-is so lame.)

And just as expressions such as "she chose by chance" can mislead us in such contexts, so can expressions like "she got lucky." Recall that in the cases of the assassin and the husband, one might say "they got lucky" in killing the prime minister and breaking the table because their actions were undetermined. Yet, as we noted, it does not follow that they were not responsible. So ask yourself this question: Why does the inference "he got lucky, so he was not responsible?" fail when it does fail, in the cases of the husband and the assassin? The first part of an answer has to do with the point made earlier that "luck," like "chance," has question-begging implications in ordinary language that are not necessarily implications of "indeterminism" (which implies only the absence of deterministic causation). The core meaning of "he got lucky" in the assassin and husband cases, which is implied by indeterminism, I suggest, is that "he succeeded despite the probability or chance of failure"; and this core meaning does not imply lack of responsibility, if he succeeds.

If "he got lucky" had further meanings in the husband and assassin cases that are often associated with "luck" and "chance" in ordinary usage (for example, the outcome was not his doing, or occurred by mere chance, or he was not responsible for it), the inference would not fail for the husband and assassin, as it clearly does. But the point is that these further meanings of "luck" and "chance" do not follow from the mere presence of indeterminism. The second reason why the inference "he got lucky, so he was not responsible" fails for the assassin and the husband is that what they succeeded in doing was what they were trying and wanting to do all along (kill the minister and break the table respectively). The third reason is that when they succeeded, their reaction was not "oh dear, that was a mistake, an accident-something that happened to me, not something I did." Rather they endorsed the outcomes as something they were trying and wanting to do all along, that is to say, knowingly and purposefully, not by mistake or accident.

But these conditions are satisfied in the businesswoman's case as well, either way she chooses. If she succeeds in choosing to return to help the victim (or in choosing to go on to her meeting), first, she will have "succeeded despite the probability or chance of failure"; second, she

will have succeeded in doing what she was trying and wanting to do all along (she wanted both outcomes very much, but for different reasons, and was trying to make those reasons prevail in both cases); and third, when she succeeded (in choosing to return to help) her reaction was not "oh dear, that was a mistake, an accident-something that happened to me, not something I did." Rather she endorsed the outcome as something she was trying and wanting to do all along; she recognized it as her resolution of the conflict in her will. And if she had chosen to go on to her meeting, she would have endorsed that outcome, recognizing it as her resolution of the conflict in her will.

Let us try another tack. Perhaps we are begging the question by assuming at the outset that the outcomes of the woman's efforts are her choices. If they are not choices to begin with, they cannot be voluntary choices. One might argue this on the grounds that (A) "if an event is undetermined, it must be something that merely happens and cannot be somebody's choice"; or (B) "if an event is undetermined, it

must be something that merely happens, it cannot be something an agent does (it cannot be an action)." But to see how questionbegging these assumptions are, one has only to note that A and B imply respectively (A') "if an event is a choice, it must be determined" ("all choices are determined") and (B') "if an event is an action, it must be determined" ("all actions are determined"). Are these claims supposed to be true necessarily or by definition? If so, the free will issue would be solved by fiat; it would follow merely from the meanings of the words that all choices and actions are determined.

But why should we believe this? Was the husband's breaking the table not something he did because it was not determined? Recall that "undetermined" does not mean "uncaused." The breaking of the table was caused by the swing of his arm, and though the outcome was not inevitable, that was good enough for saying he did it and was responsible. As for choices, a choice is the formation of an intention or a purpose to do something. It resolves uncertainty and indecision in the mind about what to do, "setting the mind" on one alternative rather than another. Nothing in such a description implies that there could not be some indeterminism in the deliberation and neural processes of an agent's preceding choice corresponding to the agent's uncertainty about what to do. Recall from preceding arguments that the presence of indeterminism does not mean the outcome happened merely by chance and not by the agent's effort.

But it is one thing to choose, in the sense of forming an intention; it is another thing to have control over one's choosing. Perhaps this is where the real problem lies. Would not the presence of indeterminism at least diminish the control persons have over their choices and other actions? Is it not the case that the assassin's control over whether the prime minister is killed (his ability to realize his purposes or what he is trying to do) is lessened by the undetermined impulses in his so also for the husband and his breaking the table? Moreover, this limitation is connected with another often noted by critics that indeterminism, wherever it occurs, seems to be a hindrance or obstacle to our realizing our purposes and hence an obstacle to our freedom.

These concerns are closer to the mark, and there is something to them. But rather than being devastating objections to an incompatibilist account of free will, I think they reveal something important about such a free will. I think we should concede that indeterminism, wherever it occurs, does diminish control over what we are trying to do and is a hindrance or obstacle to the realization of our purposes. But recall that in the case of the businesswoman (and for SFAs generally), the indeterminism that is admittedly diminishing her control over one thing she is trying to do (the moral act of helping the victim) is coming from her own will—from her

desire and effort to do the opposite (go to her business meeting). And the indeterminism that is diminishing her control over the other thing she is trying to do (act selfishly and go to her meeting) is coming from her desire and effort to do the opposite (to be a moral person and act on moral reasons).

So, in each case, the indeterminism is functioning as a hindrance or obstacle to her realizing one of her purposes—a hindrance or obstacle in the form of resistance within her will. As a consequence, whichever choice she makes, whichever effort wins out, she will have to overcome the hindrance or obstacle provided by the indeterminism coming from the other. If there were no such hindrance—if there were no resistance in her will—she would indeed in a sense have "complete control" over one of her options. There would be no competing motives that would stand in the way of her choosing it. But then also she would not be free to rationally and voluntarily choose the other purpose because she would have no good competing reasons to do so. Thus, by being a hindrance to the realization of some of our purposes, indeterminism paradoxically opens up the genuine possibility of pursuing other purposes—of choosing or doing otherwise in accordance with, rather than against, our wills (voluntarily) and reasons (rationally).

To be genuinely self-forming agents (creators of ourselves)—to have free will—there must at times in life be obstacles and hindrances in our wills of this sort that we must overcome. We can concede then that indeterminism is a hindrance and a nuisance, but a necessary one if we are to have ultimate responsibility for our own wills. Being "your own self" is a struggle. We can appreciate why existentialist philosopher Jean-Paul Sartre said that true freedom (free will) is a burden many people want to "escape"—preferring instead that others tell them what to do and how to live, or perhaps preferring that their choices always be easy.¹⁰ In an earlier time, St. Augustine asked why God would have given us free will, since it is such a pain to us and to others; and the answer was that without it we would lack the greater good of being ultimately responsible for what we are and what we

agent is doing. And the undetermined outcome of the process, one way or the other, is experientially the agent's choice—something the agent does, not something that merely happens to the agent. So viewed from another perspective, the neural output that represents the choice is the result of the agent's effort even though the outcome is not determined. Perhaps we should look in another direction that has also led to doubts about whether free will can be reconciled with indeterminism or chance. What might be going on in the brain, we might ask, when free choices take place? If neuroscientists were to inspect the woman's brain when she was struggling with her moral decision, wouldn't it be the case that they would find nothing more than interconnected sets of neuron firings in which micro-indeterminacies were not negligible? These interconnected neuron firings would in turn terminate in some definite configuration of nerve firings that corresponded to the "choice" to stop and help the victim or in another set of firings corresponding to the "choice" to go on to her meeting. But why one of these outcomes occurred rather than the other would be inexplicable in terms of the preceding processes. Probabilities could be assigned for one outcome rather than the other, but that is all. And this looks like chance.

I agree that if the physical descriptions of these events were the only legitimate ones, then free will would look like nothing more than chance or probability. When neuroscientists described it in physico-chemical terms, all they would get are indeterministic chaotic processes with probabilistic outcomes. In short, if described from a physical perspective alone, free will looks like chance. But the physical description is not the only one to be considered. The indeterministic chaotic process is also, experientially considered, the agent's effort of

will-something the

If we did not add these mental descriptions of what is going on to the physical descriptions, something important would be left out of our picture of the world. To make sense of free will, we do not have to be complete (substance) dualists about mind and body, as Descartes was. But we cannot be extreme "eliminative" materialists either. We can't expect to lop off from the top of our world-view all psychological descriptions of human beings in terms of beliefs, desires, intentions, efforts, choices, and consciousness (leaving only descriptions in neurophysiological terms), and expect free will to survive. The fact is that a lot of other things important to us would not survive either if we were to lop off these psychological descriptions from our descriptions of the world, such as personhood, rationality, subjectivity, morality, and so on.

But notice that this problem is not a special one for theories of free will that presuppose indeterminism. Suppose you believed that all choices and actions were determined and that human free agency was compatible with determinism. You still could not adequately describe human agency, if you confined yourself to describing the brain in chemical and neurophysiological terms alone, leaving out all ordinary psychological descriptions in terms of beliefs, desires, intentions, efforts, choices, and consciousness. Determinists and compatibilists about free will cannot eliminate supervenient mental or psychological descriptions either, if they are going to describe human agency. It is no less a mystery how neural firings in the brain could be, or give rise to, conscious beliefs, efforts, or choices if these neural firings are determined than if they are undetermined. This problem (the problem of consciousness, or more generally, the "mind/body problem") is no special problem for indeterminist theories of free will like the one given here. It is a

problem for anyone who wishes to talk about free agency, whatever position they take on free will, compatibilist or incompatibilist, determinist or indeterminist.

These reflections naturally raise the further question of whether the indeterminism that is required by an incompatibilist theory of free will is actually there in the brain. This is an empirical question that can only be decided by scientific research and not by a philosophical theory or armchair speculation (much as philosophers would like to decide all questions a priori, or before all experience). While we cannot resolve this question, we can at least keep our minds open about it. There is so much more to be learned about the brain and living things. One caution, however: If you are inclined to believe that free will is incompatible with determinism (if you are an incompatibilist or libertarian), don't think you can escape such scientific and empirical questions altogether unless you want to leave free will a complete mystery. Even if you appealed to "transempirical power centers" or "non-event" agent causes to make sense of free will (as libertarians often do), there would still have to be some indeterminacy in the natural world and presumably in the brain where it counts to make room in nature (to provide the "causal gaps") for the intervention of these additional causes or agencies. As the ancient Epicurean philosophers said centuries ago, if the atoms do not sometimes "swerve" in undetermined ways, there will be no room in nature for free will.

Addressing this problem earlier, I suggested that conflicts in the wills of agents associated with self-forming choices might "stir up chaos" in the brain, sensitizing it to quantum indeterminacies at the neuronal level, which would then be magnified to affect the neural networks as a whole. This is speculative to be sure, and others writers have suggested different ways in which indeterminacy might be involved in the brain.¹² But such speculations are not merely idle. There is some evidence that unpredictable chaotic activity plays a role in the brain

and human cognition, providing some of the flexibility that the nervous system needs to react creatively to an ever-changing environment. A recent article in the journal *Behavior and Brain Sciences*, entitled "How Brains Make Chaos in Order to Make Sense of the World", defends this role, as do other recent writings.¹³ Now it is true that chaos (or chaotic behavior) in physical systems, though unpredictable, is nonetheless usually deterministic. Chaos does not of itself imply indeterminism. But chaotic behavior in physical systems does involve "sensitivity to initial conditions." Minute differences in the initial conditions of chaotic physical systems, including living things, may be magnified, giving rise to largescale, undetermined effects. If the brain does "make chaos to understand the world," its sensitivity to initial conditions may magnify quantum indeterminacies in neural networks whose outputs can depend on minute differences in the timings of individual neuron firings. So while quantum physics and the new sciences of chaos and complexity may not give us the indeterminism needed for free will alone (because the uncertainty of the former is usually negligible in larger physical systems and the latter need not be indeterministic by itself), they might do so together.

In any case, I have not tried to settle such empirical questions, nor could I. What I have been addressing is another set of questions that incline people to write off incompatibilist views of free will from the start, believing they could not possibly make sense and could not be reconciled with the modern scientific picture of human beings, even if indeterminism were somehow available in the physical world. I have argued to the contrary that if the indeterminism is there in nature, then something could be done to make sense of free will.

Let me conclude with one final objection that is perhaps the most telling and has not yet been discussed. Even if one granted that persons, such as the businesswoman, could make genuine self-forming choices that were undetermined, isn't there something to the charge that such choices would be "arbitrary"? A residual arbitrariness seems to remain in all self-forming choices because the agents cannot in principle have sufficient or overriding prior reasons for making one option and one set of reasons prevail over the other. The agents make one set of reasons prevail by choosing, to be sure, but they

could as well have made the other set of reasons prevail by choosing differently.

I agree that there is some truth to this charge as well. But I would argue that such arbitrariness relative to prior reasons also tells us something important about free will. It tells us that every undetermined self-forming free choice is the initiation of what might be called a "value experiment" whose justification lies in the future and is not fully explained by past reasons. In making such a choice we say, in effect, "Let's try this. It is not required by my past, but is consistent with my past and is one branching pathway my life can now meaningfully take. Whether it is the right choice, only time will tell. Meanwhile, I am willing to take responsibility for it one way or the other."

It is worth noting that the term "arbitrary" comes from the Latin *arbitrium*, which means "judgment"-as in *liberum arbitrium voluntatis*, "free judgment of the will" (the medieval philosophers' designation for free will). Imagine a writer in the middle of a novel. The novel's heroine faces a crisis and the writer has not yet developed her character in sufficient detail to say exactly how she will act. The author makes a "judgment" about this that is not determined by the heroine's already formed past, which does not give unique direction. In this sense, the judgment (*arbitrium*) of how she will react is "arbitrary," but not entirely so. It had input from the heroine's fictional past and in turn gave input to her projected future. In a similar way, agents who exercise free will are both authors of and characters in their own stories all at once. By virtue of "self-forming" judgments of the will (*arbitria voluntatis*), they are "arbiters" of their own lives,

"making themselves" out of a past that, if they are truly free, does not limit their future pathways to one.

Suppose we were to say to them, "But look, you didn't have sufficient or conclusive prior reasons for choosing as you did since you also had viable reasons for choosing the other way." They might reply, "True enough. But I did have good reasons for choosing as I did, which I'm willing to stand by and take responsibility for. If they were not sufficient or conclusive reasons, that's because, like the heroine of the novel, I was not a fully formed person before I chose (and still am not, for that matter). Like the author of the novel described above, I am in the process of writing an unfinished story and forming an unfinished character who, in my case, is myself."

NOTES

1. *Paradise Lost* (London: Methuen, 1955), prologue.
2. *Brave New World* (San Francisco: Harper-Collins, 1989). *Walden Two* (New York: MacMillan, 1962). Page references in the paper to *Walden Two* are to this edition.
3. This is why we are naturally inclined to ask in cases like this whether someone else in exactly the same circumstances might have acted differently.
4. Kant, *The Critique of Practical Reason*. Trans. by L. W. Beck (Indianapolis: Bobbs-Merrill, 1956), part III.
5. Eccles, *Facing Reality* (New York: Springer-Verlag, 1970).
6. For defenses of this agent-causal position by various authors, see the essays in T. O'Connor (ed.), *Agents, Causes and Events: Essays on Indeterminism and Free Will* (Oxford: Oxford University Press, 1995).
7. These ideas are developed at greater length in my book, *The Significance of Free Will* (Oxford and New York: Oxford University Press, 1996; paperback edition, 1998).
8. A readable and accessible introduction to the role of neural networks (including recurrent networks) in cognitive processing is P. M. Churchland, *The Engine of Reason, the Seat of the Soul* (Cambridge, MA: MIT Press, 1996).
9. I show in greater detail that each of these conditions can be satisfied by self-forming choices or SFAs in *The Significance of Free Will* (op. cit.), chapter 8.
10. Sartre, "Selections from Being and Nothingness." In S. Morgenbesser et al. (eds.), *Free Will* (Englewood Cliffs, NJ: Prentice-Hall, 1962), pp. 95-113.
11. Augustine, *On the Free Choice of the Will* (Indianapolis: Bobbs-Merrill, 1964), Part I.
12. For example, H. Stapp, *Mind, Matter and Quantum Mechanics* (New York: Springer-Verlag, 1993); D. Hodgson, *The Mind Matters* (Oxford: Clarendon Press, 1991); R. Penrose, *The Emperor's New Mind* (Oxford: Oxford University Press, 1989); J. Eccles (op. cit.)
13. The article is C. Skarda and W. Freeman, *Behavioral and Brain Sciences* 10 (1987): 161-195; other writings on the subject include A. Babloyantz and A. Destexhe, "Strange Attractors in the Human Cortex." In L. Rensing (ed.), *Temporal Disorder in Human Oscillatory Systems* (New York: Springer-Verlag, 1985); G. Scott and M. McMillen (eds.), *Dissipative Structures and Spatiotemporal Organization Studies in Biomedical Research* (Ames: Iowa State University Press, 1980); H. Walter, *Neurophilosophy and Free Will*. Trans. by Cynthia Stohr (Cambridge, MA: MIT Press, 2001), Part III.

HARD DETERMINISM: THE CASE FOR

DETERMINISM AND ITS INCOMPATIBILITY

WITH ANY IMPORTANT SENSE OF FREE WILL

The Illusion of Free Will

PAUL HOLBACH

Paul Henri Thiry, Baron d'Holbach (1723-1789), a French philosopher, was one of the Encyclopedists. His book, *System of Nature*, was called by his enemies "the Bible of Atheists."

From *System of Nature* by Baron Paul d'Holbach, published in 1770. Translated by H. D. Robinson.

Motives and the Determinism of the Will. In whatever manner man is considered, he is connected to universal nature, and submitted to the necessary and immutable laws that she imposes on all the beings she contains, according to their peculiar essences or to the respective properties with which, without consulting them, she endows each particular species. Man's life is a line that nature commands him to describe upon the surface of the earth, without his ever being able to swerve from it, even for an instant. He is born without his own consent; his organization does in nowise depend upon himself; his ideas come to him involuntarily; his habits are in the power of those who cause him to contract them; he is unceasingly modified by causes, whether visible or concealed, over which he has no control, which necessarily regulate his mode of existence, give the hue to his way of thinking, and determine his manner of acting. He is good or bad, happy or miserable, wise or foolish, reasonable or irrational, without his will being for anything in these various states. Nevertheless, in spite of the shackles by which he is bound, it is pretended he is a free agent, or that independent of the causes by which he is moved, he determines his own will, and regulates his own condition....

The will, as we have elsewhere said, is a modification of the brain, by which it is disposed to action, or prepared to give play to the organs. This will is necessarily determined by the qualities, good or bad, agreeable or painful, of the object or the motive that acts upon his senses, or of which the idea remains with him, and is resuscitated by his memory. In consequence, he acts necessarily, his action is the result of the impulse he receives either from the motive, from the object, or from the idea which has modified his brain, or disposed his will. When he does not act according to this impulse, it is because there comes some new cause, some new motive, some new idea, which modifies his brain in a different manner, gives him a new impulse, determines his will in another way, by which the action of the former impulse is suspended: thus, the sight of an agreeable object, or its idea, determines his will to set him in action to procure it; but if a new object or a new idea

more powerfully attracts him, it gives a new direction to his will, annihilates the effect of the former, and prevents the action by which it was to be procured. This is the mode in which reflection, experience, reason, necessarily arrests or suspends the action of man's will: without this he would of necessity have followed the anterior impulse which carried him towards a then desirable object. In all this he always acts according to necessary laws from which he has no means of emancipating himself.

If when tormented with violent thirst, he figures to himself in idea, or really perceives a fountain, whose limpid streams might cool his feverish want, is he sufficient master of himself to desire or not to desire the object competent to satisfy so lively a want? It will no doubt be conceded, that it is impossible he should not be desirous to satisfy it; but it will be said-if at this

moment it is announced to him that the water he so ardently desires is poisoned, he will, notwithstanding his vehement thirst, abstain from drinking it: and it has, therefore, been falsely concluded that he is a free agent. The fact, however, is, that the motive in either case is exactly the same: his own conservation. The same necessity that determined him to drink before he knew the water was deleterious upon this new discovery equally determined him not to drink; the desire of conserving himself either annihilates or suspends the former impulse; the second motive becomes stronger than the preceding, that is, the fear of death, or the desire of preserving himself, necessarily prevails over the painful sensation caused by his eagerness to drink: but, it will be said, if the thirst is very parching, an inconsiderate man without regarding the danger will risk swallowing the water. Nothing is gained by this remark; in this case, the anterior impulse only regains the ascendancy; he is persuaded that life may possibly be longer preserved, or that he shall derive a greater good by drinking the poisoned water than by enduring the torment, which, to his mind, threatens instant dissolution; thus the first becomes the strongest and necessarily urges him on to action. Nevertheless, in either case, whether he partakes of the water, or whether he does not, the two actions will be equally necessary; they will be the effect of that motive which finds itself most puissant; which consequently acts in the most coercive manner upon his will.

This example will serve to explain the whole phenomena of the human will. This will, or rather the brain, finds itself in the same situation as a bowl, which, although it has received an impulse that drives it forward in a straight line, is deranged in its course whenever a force superior to the first obliges it to change its direction. The man who drinks the poisoned water appears a madman; but the actions of fools are as necessary as those of the most prudent individuals. The motives that determine the voluptuary and the debauches to risk their health, are as powerful, and their actions are as necessary, as those which decide the wise man to manage his. But, it will be insisted, the debauchee may be prevailed on to change his conduct: this does not imply that he is a free agent; but that motives may be found sufficiently powerful to annihilate the effect of those that previously acted upon him; then these new motives determine his will to the new mode of conduct he may adopt as necessarily as the former did to the old mode....

The errors of philosophers on the free agency of man, have arisen from their regarding his will as the *primum mobile*, the original motive of his actions; for want of recurring back, they have not perceived the multiplied, the complicated causes which, independently of him, give motion to the will itself; or which dispose and modify his brain, while he himself is purely passive in the motion he receives. Is he the master of desiring or not desiring an object that appears desirable to him? Without doubt it will be answered, no: but he is the master of resisting his desire, if he reflects on the consequences. But, I ask, is he capable of reflecting on these consequences, when his soul is hurried along by a very lively passion, which entirely depends upon his natural organization, and the causes by which he is modified? Is it in his power to add to these consequences all the weight necessary to counterbalance his desire? Is he the master of preventing the qualities which render an object desirable from residing in it? I shall be told: he ought to have learned to resist his passions; to contract a habit of putting a curb on his desires. I agree to it without any

difficulty. But in reply, I again ask, is his nature susceptible of this modification? Does his boiling blood, his unruly imagination, the igneous fluid that circulates in his veins, permit him to make, enable him to apply true experience in the moment when it is wanted? And even when his temperament has capacitated him, has his education, the examples set before him, the

ideas with which he has been inspired in early life, been suitable to make him contract this habit of repressing his desires? Have not all these things rather contributed to induce him to seek with avidity, to make him actually desire those objects which you say he ought to resist? ...

In short, the actions of man are never free; they are always the necessary consequence of his temperament, of the received ideas, and of the notions, either true or false, which he has formed to himself of happiness; of his opinions, strengthened by example, by education, and by daily experience. So many crimes are witnessed on the earth only because every thing conspires to render man vicious and criminal; the religion he has adopted, his government, his education, the examples set before him, irresistibly drive him on to evil: under these circumstances, morality preaches virtue to him in vain. In those societies where vice is esteemed, where crime is crowned, where venality is constantly recompensed, where the most dreadful disorders are punished only in those who are too weak to enjoy the privilege of committing them with impunity, the practice of virtue is considered nothing more than a painful sacrifice of happiness. Such societies chastise, in the lower orders, those excesses which they respect in the higher ranks; and frequently have the injustice to condemn those in the penalty of death, whom public prejudices, maintained by constant example, have rendered criminal.

Man, then, is not a free agent in any one instant of his life; he is necessarily guided in each step by those advantages, whether real or fictitious, that he attaches to the objects by which his passions are roused: these passions themselves are necessary in a being who unceasingly tends towards his own happiness; their energy is necessary, since that depends on his temperament; his temperament is necessary, because it depends on the physical elements which enter into his composition; the modification of this temperament is necessary, as it is the infallible and inevitable consequence of the impulse he receives from the incessant action of moral and physical beings.

Choice Does Not Prove Freedom. In spite of these proofs of the want of free agency in man, so clear to unprejudiced minds, it will, perhaps be insisted upon with no small feeling of triumph, that if it be proposed to any one, to move or not to move his hand, an action in the number of those called indifferent, he evidently appears to be the master of choosing; from which it is concluded that evidence has been offered of free agency. The reply is, this example is perfectly simple; man in performing some action which he is resolved on doing, does not by any means prove his free agency; the very desire of displaying this quality, excited by the dispute, becomes a necessary motive, which decides his will either for the one or the other of these actions: What deludes him in this instance, or that which persuades him he is a free agent at this moment, is, that he does not discern the true motive which sets him in action, namely, the desire of convincing his opponent: if in the heat of the dispute he insists and asks, "Am I not the master of throwing myself out of the window?" I shall answer him, no; that whilst he preserves his reason there is no probability that the desire of proving his free agency, will become a motive sufficiently powerful to make him sacrifice his life to the attempt: if, notwithstanding this, to prove he is a free agent, he should actually precipitate himself from the window, it would not be a sufficient warranty to conclude he acted freely, but rather that it was the violence of his temperament which spurred him on to this folly. Madness is a state, that depends upon the heat of the blood, not upon the will. A fanatic or a hero, braves death as necessarily as a more phlegmatic man or coward flies from it.

There is, in point of fact, no difference between the man that is cast out of the window by another, and the man who throws himself out of it, except that the impulse in the first instance comes immediately from without whilst that which determines the fall in the second case,

springs from within his own peculiar

machine, having its more remote cause also exterior. When Mutius Scaevola held his hand in the fire, he was as much acting under the influence of necessity (caused by interior motives) that urged him to this strange action, as if his arm had been held by strong men: pride, despair, the desire of braving his enemy, a wish to astonish him, and anxiety to intimidate him, etc., were the invisible chains that held his hand bound to the fire. The love of glory, enthusiasm for their country, in like manner caused Codrus and Decius to devote themselves for their fellow-citizens. The Indian Colanus and the philosopher Peregrinus were equally obliged to burn themselves, by desire of exciting the astonishment of the Grecian assembly.

It is said that free agency is the absence of those obstacles competent to oppose themselves to the actions of man, or to the exercise of his faculties: it is pretended that his is a free agent whenever, making use of these faculties, he produces the effect he has proposed to himself. In reply to this reasoning, it is sufficient to consider that it in nowise depends upon himself to place or remove the obstacles that either determine or resist him; the motive that causes his action is no more in his own power than the obstacle that impedes him, whether this obstacle or motive be within his own machine or exterior of his person: he is not master of the thought presented to his mind, which determines his will; this thought is excited by some cause independent of himself.

To be undeceived on the system of his free agency, man has simply to recur to the motive by which his will is determined; he will always find this motive is out of his own control. It is said: that in consequence of an idea to which the mind gives birth, man acts freely if he encounters no obstacle. But the question is, what gives birth to this idea in his brain? Was he the master either to prevent it from presenting itself, or from renewing itself in his brain? Does not this idea depend either upon objects that strike him exteriorly and in despite of himself, or upon causes, that without his knowledge, act within himself and modify his brain? Can he prevent his eyes, cast without design upon any object whatever, from giving him an idea of this object, and from moving his brain? He is not more master of the obstacles; they are the necessary effects of either interior or exterior causes, which always act according to their given properties. A man insults a coward; this necessarily irritates him against his insulter; but his will cannot vanquish the obstacle that cowardice places to the object of his desire, because his natural conformation, which does not depend upon himself, prevents his having courage. In this case, the coward is insulted in spite of himself; and against his will is obliged patiently to brook the insult he has received.

Absence of Restraint Is Not Absence of Necessity. The partisans of the system of free agency appear ever to have confounded constraint with necessity. Man believes he acts as a free agent, every time he does not see any thing that places obstacles to his actions; he does not perceive that the motive which causes him to will, is always necessary and independent of himself. A prisoner loaded with chains is compelled to remain in prison; but he is not a free agent in the desire to emancipate himself; his chains prevent him from acting, but they do not prevent him from willing; he would save himself if they would loose his fetters; but he would not save himself as a free agent; fear or the idea of punishment would be sufficient motives for his action.

Man may, therefore, cease to be restrained, without, for that reason, becoming a free agent: in whatever manner he acts, he will act necessarily, according to motives by which he shall be determined. He may be compared to a heavy body that finds itself arrested in its descent by any obstacle whatever: take away this obstacle, it will gravitate or continue to fall; but who

shall say this dense body is free to fall or not? Is not its descent the necessary effect of its own specific gravity? The virtuous Socrates submitted to the laws of his country, although they were unjust; and though the doors of his jail were left open to him, he would not save himself; but in this he did not act as a free agent: the invisible chains of opinion, the secret love of decorum, the inward respect for the laws, even when they were iniquitous, the fear of tarnishing his glory, kept him in his prison; they were motives sufficiently

powerful with this enthusiast for virtue, to induce him to wait death with tranquility; it was not in his power to save himself, because he could find no potential motive to bring him to depart, even for an instant, from those principles to which his mind was accustomed.

Man, it is said, frequently acts against his inclination, from whence it is falsely concluded he is a free agent; but when he appears to act contrary to his inclination, he is always determined to it by some motive sufficiently efficacious to vanquish this inclination. A sick man, with a view to his cure, arrives at conquering his repugnance to the most disgusting remedies: the fear of pain, or the dread of death, then become necessary motives; consequently this sick man cannot be said to act freely.

When it is said, that man is not a free agent, it is not pretended to compare him to a body moved by a simple impulsive cause: he contains within himself causes inherent to his existence; he is moved by an interior organ, which has its own peculiar laws, and is itself necessarily determined in consequence of ideas formed from perception resulting from sensation which it receives from exterior objects. As the mechanism of these sensations, of these perceptions, and the manner they engrave ideas on the brain of man, are not known to him; because he is unable to unravel all these motions; because he cannot perceive the chain of operations in his soul, or the motive principle that acts within him, he supposes himself a free agent; which literally translated, signifies, that he moves himself by himself; that he determines himself without cause: when he rather ought to say, that he is ignorant how or why he acts in the manner he does. It is true the soul enjoys an activity peculiar to itself: but it is equally certain that this activity would never be displayed, if some motive or some cause did not put it in a condition to exercise itself: at least it will not be pretended that the soul is able either to love or to hate without being moved, without knowing the objects, without having some idea of their qualities. Gunpowder has unquestionably a particular activity, but this activity will never display itself, unless fire be applied to it; this, however, immediately sets it in motion.

The Complexity of Human Conduct and the Illusion of Free Agency. It is the great complication of motion in man, it is the variety of his action, it is the multiplicity of causes that move him, whether simultaneously or in continual succession, that persuades him he is a free agent: if all his motions were simple, if the causes that move him did not confound themselves with each other, if they were distinct, if his machine were less complicated, he would perceive that all his actions were necessary, because he would be enabled to recur instantly to the cause that made him act. A man who should be always obliged to go towards the west, would always go on that side; but he would feel that, in so going, he was not a free agent: if he had another sense, as his actions or his motion, augmented by a sixth, would be still more varied and much more complicated, he would believe himself still more a free agent than he does with his five senses.

It is, then, for want of recurring to the causes that move him; for want of being able to analyze, from not being competent to decompose the complicated motion of his machine, that man believes himself a free agent: it is only upon his own ignorance that he founds the profound yet deceitful notion he has of his free agency; that he builds those opinions which he brings

forward as a striking proof of his pretended freedom of action. If, for a short time, each man was willing to examine his own peculiar actions, search out their true motives to discover their concatenation, he would remain convinced that the sentiment he has of his natural free agency, is a chimera that must speedily be destroyed by experience.

Nevertheless it must be acknowledged that the multiplicity and diversity of the causes which continually act upon man, frequently without even his knowledge, render it impossible, or at least extremely difficult for him to recur to the true principles of his own peculiar actions, much less the actions of others: they frequently depend upon causes so fugitive, so remote from their effects, and which, superficially examined, appear to have so little analogy, so slender a relation with them, that it requires singular sagacity to bring them into light. This is what renders

the study of the moral man a task of such difficulty; this is the reason why his heart is an abyss, of which it is frequently impossible for him to fathom the depth....

If he understood the play of his organs, if he were able to recall to himself all the impulsions they have received, all the modifications they have undergone, all the effects they have produced, he would perceive that all his actions are submitted to the fatality, which regulates his own particular system, as it does the entire system of the universe: no one effect in him, any more than in nature, produces itself by chance; this, as has been before proved, is word void of sense. All that passes in him; all that is done by him; as well as all that happens in nature, or that is attributed to her, is derived from necessary causes, which act according to necessary laws, and which produce necessary effects from whence necessarily flow others.

Fatality, is the eternal, the immutable, the necessary order, established in nature; or the indispensable connexion of causes that act, with the effects they operate. Conforming to this order, heavy bodies fall: light bodies rise; that which is analogous in matter reciprocally attracts; that which is heterogeneous mutually repels; man congregates himself in society, modifies each his fellow; becomes either virtuous or wicked; either contributes to his mutual happiness, or reciprocates his misery; either loves his neighbour, or hates his companion necessarily, according to the manner in which the one acts upon the other. From whence it may be seen, that the same necessity which regulates the physical, also regulates the moral world, in which every thing is in consequence submitted to fatality. Man, in running over, frequently without his own knowledge, often in spite of himself, the route which nature has marked out for him, resembles a swimmer who is obliged to follow the current that carries him along: he believes himself a free agent, because he sometimes consents, sometimes does not consent, to glide with the stream, which notwithstanding, always hurries him forward; he believes himself the master of his condition, because he is obliged to use his arms under the fear of sinking....

Why We Have No Free Will and Can Live Without It

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1. OUTLINE OF HARD INCOMPATIBILISM

Baruch Spinoza (1677/1985: 440-44, 483-84, 496-97) maintained that due to certain general facts about the nature of the universe, we human beings do not have the sort of free will required for moral responsibility. I agree. More exactly, he argues that it is because causal determinism is true that we lack this sort of free will; he is thus a hard determinist. By contrast, the position I defend is agnostic about causal determinism. I contend, like Spinoza, that we

would not have the sort of free will required for moral responsibility if causal determinism were true, but also that indeterministic theories do not significantly improve the prospects for this sort of free will. Consequently, we need to take seriously the verdict that we lack the sort of free will required for moral responsibility. I call the resulting view hard incompatibilism. In addition, I argue that a conception of life without this sort of free will need not exclude morality or our sense of meaning in life, and in some respects it could even be beneficial.

2. AGAINST COMPATIBILISM

The case for hard incompatibilism involves arguing against two competing positions. The first of these is compatibilism, which claims that free will of the type required for moral responsibility is compatible with determinism. Compatibilists typically maintain, in addition, that we do in fact have this sort of free will. The second is libertarianism, which contends that although the sort of free will required for moral responsibility is not compatible with determinism, it turns out that determinism is false, and we do have this kind of free will.

Compatibilists typically attempt to formulate conditions on agency intended to provide an account of what it is to be morally responsible for an action. These conditions are compatibilist in that they allow for an agent to be morally responsible for an action even when she is causally determined to act as she does. For instance, David Hume and his followers specify that morally responsible action be caused by desires that flow from the agent's "durable and constant" character, and that the agent not be constrained to act, at least in the sense that the action not result from an irresistible desire (Hume 1739/1978: 319-412). Harry Frankfurt proposes that moral responsibility requires that the agent have endorsed and produced her will to perform the action in the right way. More specifically, she must have a second-order is, a desire to have a particular will to perform it, and her will must be her will because she has this second-order desire (Frankfurt 1971). John Fischer argues that morally responsible action must result from a rational consideration of the reasons at issue; among other things, the agent must be receptive to the reasons present in a situation, and she must be responsive to them to the degree that in at least some situations in which the reasons are different, she would have done otherwise (Fischer 1994). Finally, Jay Wallace proposes that moral responsibility requires that the agent have the general ability to grasp, apply, and regulate her behavior by moral reasons (Wallace 1994). Each of these compatibilists intends for his conditions to be sufficient for an agent's moral responsibility when they are supplemented by some fairly uncontroversial additional necessary conditions, such as the provision that the agent understands that killing is morally wrong.

In my view, the best type of challenge to the compatibilist begins with the intuition that if someone is causally determined to act by other agents, for example, by scientists who manipulate her brain, then she is not morally responsible for that action. This intuition remains strong even if she meets the compatibilist conditions on moral responsibility just canvassed. The following "four-case argument" first of all develops examples of actions that involve such manipulation, in which these compatibilist conditions on moral responsibility are satisfied (1995, 2001). These cases, taken individually, indicate that it is possible for an agent not to be morally responsible even if the compatibilist conditions are satisfied, and that as a result these conditions are inadequate. But the argument has additional force, by way of setting out three such cases, each progressively more like a fourth scenario which the compatibilist might envision to be realistic, in which the action is causally determined in a natural way. The further challenge for the compatibilist is to point out a difference between this fourth scenario and one or more of the manipulation examples that shows why the agent might be morally responsible in the ordinary case but not in the manipulation examples. My contention is that non-responsibility generalizes

from at least one of the manipulation cases to the ordinary one.

In each of the four cases, Professor Plum decides to kill Ms. White for the sake of some personal advantage, and succeeds in doing so. We design the cases so that his act of murder conforms to the prominent compatibilist conditions. Plum's action meets the Humean conditions, since for him purely selfish reasons typically weigh too heavily as judged from the moral point of view; in addition the desire that motivates him to act is nevertheless not irresistible for him, and in this sense he is not constrained to act. It fits the condition proposed by Frankfurt: Plum's effective desire (i.e., his will) to murder White conforms appropriately to his second-order desires for which effective desires he will have. That is, he wills to murder

her, and he wants to will to do so, and he wills this act of murder because he wants to will to do so. The action also satisfies the reasons-responsiveness condition advocated by Fischer: Plum's desires are modified by, and some of them arise from, his rational consideration of the reasons he has, and if he knew that the bad consequences for himself that would result from killing White would be much more severe than they are actually likely to be, he would have refrained from killing her for this reason. In addition, this action meets the condition advanced by Wallace: Plum retains the general ability to grasp, apply, and regulate his behavior by moral reasons. For instance, when egoistic reasons that count against acting morally are relatively weak, he will usually regulate his behavior by moral reasons instead. This ability even provides him with the capacity to revise and develop his moral character over time. Now, supposing that causal determinism is true, is it plausible that Plum is morally responsible for his action?

Each of the four cases I will now describe features different ways in which Plum's murder of White might be causally determined by factors beyond his control.

Case 1: Professor Plum was created by neuroscientists, and they can manipulate him directly through the use of radio-like technology, but he is as much like an ordinary human being as is possible given these unusual features. The neuroscientists manipulate him to undertake the process of reasoning by which the desires at play in his act of murder are brought about and modified. They do this by pushing a series of buttons just before he begins to reason about his situation, thereby causing his reasoning process to be rationally egoistic. Plum does not think and act contrary to character since his reasoning process is typically rationally egoistic. His effective first-order desire to kill White conforms to his second-order desires. The process of deliberation from which his action results is reasons-responsive; in particular, this type of process would have resulted in his refraining from killing White in some situations in which the egoistic reasons were different. Still, he is not exclusively rationally egoistic, since he typically regulates his behavior by moral reasons when the egoistic reasons are relatively weak weaker than they are in the current situation. He is also not constrained, in the sense that he does not act because of an irresistible desire the neuroscientists do not provide him with a desire of this kind.

In Case 1, Plum's action satisfies all the compatibilist conditions we just examined. But intuitively, he is not morally responsible for the murder, because his action is causally determined by what the neuroscientists do, which is beyond his control. Consequently, it would seem that these compatibilist conditions are not sufficient for moral responsibility, even if all taken together.

A compatibilist might resist this conclusion by arguing that although in Case 1 the process resulting in the action satisfies all of the prominent compatibilist conditions, yet Plum's relevant states are directly produced by the manipulators moment by moment-he is locally manipulated- and this is the aspect of the story that undermines his moral responsibility. In reply, could a time lag between the manipulators' activity and the production of the states in the agent

plausibly make the crucial difference as to whether an agent is morally responsible? If the neuroscientists did all of their manipulating during one time interval and, after an appropriate length of time, the relevant states were produced in him, would he only then be morally responsible? It is my sense that such a time lag, all by itself, would make no difference to whether an agent is responsible.

Let us now consider a scenario more like the ordinary situation than Case 1.

Case 2: Plum is like an ordinary human being, except that neuroscientists have programmed him at the beginning of his life to weigh reasons for action so that he is often but not exclusively rationally egoistic, with the consequence that in the circumstances in which he now finds himself, he is causally determined to engage in the reasons-responsive process of deliberation and to have the set of first- and second-order desires that result in his killing White. Plum has the general ability to regulate his behavior by moral reasons, but in his circumstances the

egoistic reasons weigh very heavily for him, and consequently he is causally determined to murder White. But at the same time he does not act because of an irresistible desire.

Here again, although Plum meets each of the compatibilist conditions, it is intuitive that he is not morally responsible. Thus Case 2 also shows that the prominent compatibilist conditions, either separately or in conjunction, are not sufficient for moral responsibility. Furthermore, it would seem unprincipled to claim that here, by contrast with Case 1, Plum is morally responsible because the length of time between the programming and the action is now great enough. Whether the programming occurs a few seconds or fifty years before the action seems irrelevant to the question of his moral responsibility. Causal determination by factors beyond Plum's control plausibly explains his lack of moral responsibility in the first case, and I believe that we are forced to say that he is not morally responsible in the second case for the same reason.

Imagine next a scenario more similar yet to an ordinary situation.

Case 3: Plum is an ordinary human being, except that he was causally determined by the rigorous training practices of his household and community so that he is often but not exclusively rationally egoistic (exactly as egoistic as in Cases 1 and 2). This training took place when he was too young to have the ability to prevent or alter the practices that determined his character. Consequently, Plum is causally determined to engage in the reasons-responsive process of deliberation and to have the first- and second-order desires that result in his killing White. Here again he has the general ability to grasp, apply, and regulate his behavior by moral reasons, but in these circumstances the egoistic reasons are very powerful, and so the training practices of his upbringing, in conjunction with background circumstances, deterministically result in his act of murder. Nonetheless, he does not act on an irresistible desire.

If a compatibilist wishes to contend that Plum is morally responsible in Case 3, he needs to point to a feature of these circumstances that would explain why he is morally responsible here but not in Case 2. But it seems that there is no such feature. In each of these examples, Plum meets all the prominent compatibilist conditions for morally responsible action, so a divergence in judgment about moral responsibility between these examples will not be supported by a difference in whether these conditions are satisfied. Causal determination by factors beyond his control most plausibly explains the absence of moral responsibility in Case 2, and we are constrained to conclude that Plum is not morally responsible in Case 3 for the same reason.

Thus it appears that Plum's exemption from responsibility in Cases 1 and 2 generalizes to the nearer-to-normal Case 3. Does it generalize all the way to the ordinary case?

Case 4: Physicalist determinism is true everything in the universe is in some sense physical, and every event is rendered inevitable by virtue of the past states of this physical universe in conjunction with causal processes governed by laws of nature. Plum is an ordinary human being, raised in normal circumstances, and he is typically but not exclusively rationally egoistic (just as egoistic as in Cases 1-3). His act of murdering White results from his engaging in the reasons-responsive process of deliberation, and he has the specified first- and second-order desires. Although he possesses the general ability to grasp, apply, and regulate his behavior by moral reasons, in these circumstances the egoistic reasons weigh very heavily for him, and he is thus causally determined to kill White. However, it is not due to an irresistible desire that he commits this act of murder.

Given that we need to deny moral responsibility in Case 3, could Plum be responsible in this more ordinary case? There would seem to be no differences between Case 3 and Case 4 that could serve to justify the claim that Plum is not responsible in Case 3 but is in Case 4. One distinguishing feature of Case 4 is that the causal determination of Plum's crime is not brought about by other agents (Lycan 1997: 117-18). However, the claim that this is a relevant difference is implausible. Imagine

a further case that is exactly the same as, say, Case 1 or Case 2, except that Plum's states are induced by a spontaneously generated machine—a machine that has no intelligent designer. Here also Plum would not be morally responsible.

The best explanation for the intuition that Plum is not morally responsible in the first three cases is that his action is produced by a deterministic causal process that traces back to factors beyond his control. Because his action is also causally determined in this way in Case 4, we should conclude that here again he is not morally responsible. So by this argument, Plum's non-responsibility in Case 1 generalizes to non-responsibility in Case 4. We should conclude, I think, that if an action results from any deterministic causal process that traces back to factors beyond the agent's control, then she will lack the control required to be morally responsible for it.

3. EVENT-CAUSAL LIBERTARIANISM AND THE LUCK OBJECTION

Let us now consider libertarianism, the variety of incompatibilism that claims that we do have the sort of free will required for moral responsibility. There are two major types of libertarianism, the event-causal and the agent-causal versions. In event-causal libertarianism, actions are caused solely by events—events such as Joe's desiring at noon to have lunch, or Mary's believing today that if she sells her stock tomorrow she will maximize her gains. Now it is often supposed that all causation in the physical world is by events, and not by things, such as stars, machines, and agents, which we call substances. Although one might say, for example, that a bomb—a substance—caused damage to the building, when we want to speak more accurately, we say instead that the bomb's exploding at a certain time—an event—caused the damage. So if we think carefully about what it is in the physical world that causes effects, it turns out to be events, not substances. In solidarity with this position, event-causal libertariansim maintains that all actions are caused solely by events, and further, that some type of indeterminacy in the production of actions by appropriate events is the decisive requirement for moral responsibility (Kane 1996; Ekstrom 2000).

Critics of libertarianism have contended that if actions are not causally determined, agents cannot be morally responsible for them. Its classical presentation of this objection is found in Hume's *Treatise of Human Nature*, and it has become known as the "luck" objection

(Hume 1739/1978: 411-12). The key idea is that if, holding fixed all of the conditions that precede an action, the action could either occur or not, then whether it does occur is a matter of chance or luck, and the agent cannot be morally responsible for it (Hume 1739/1978: 411-12).

I contend that event-causal libertarianism is undermined by the luck objection. Intuitively, for an agent to be morally responsible for a decision, she must exercise a certain type and degree of control in making that decision. In an eventcausal libertarian picture, the relevant causal conditions prior to a decision-events that involve the it open whether this decision will occur, and the agent has no further causal role in determining whether it in fact does. Accordingly, whether the decision occurs or not is in this sense a matter of luck, and the agent lacks the control required for being morally responsible for it.

To illustrate, consider Robert Kane's example of a call her Anne who has a choice between stopping to help out an assault victim, as a result of which she would be late for an important meeting, or not stopping, which would allow her to make it to a meeting on time (Kane 1996). For simplicity, suppose the causally relevant events that immediately precede the action are, against stopping, Anne's desiring not make her boss angry, and Anne's believing that if she is late for the meeting her boss will be angry with her; and for stopping, Anne's desiring to help people in trouble, and Anne's belief that she can help the assault victim. Imagine that the motivational force of each of these pairs of prior events is for her about the same. On an event-causal libertarian view, with the causal influence of these events already in place, both Anne's deciding to stop and her not deciding to stop remain significantly probable outcomes. Suppose that she in fact decides to

stop. There is nothing else about Anne that can settle whether the decision to stop occurs, because in this theory her role in producing a decision is exhausted by these prior events. If nothing about Anne can settle whether the decision occurs, then she will not have the control required for moral responsibility for it. This might be called the problem of the disappearing agent. On an event-causal libertarian theory, no provision allows the agent to have the right sort of control over whether the decision occurs, and for this reason she lacks the control required for moral responsibility for it.

Libertarians agree that an action's resulting from a deterministic sequence of causes that traces back to factors beyond the agent's control would rule out her moral responsibility for it. One deeper point of the luck objection is that if this sort of causal determination rules out moral responsibility, then it is no remedy simply to provide slack in the causal net by making the causal history of actions indeterministic. Such a move would yield one prerequisite for moral responsibility-the absence of causal determinism for decision and action-but it would not supply another sufficiently enhanced control (Clarke 2003). In particular, it would not provide the capacity for an agent to be the source of her decisions and actions that, according to many incompatibilists, is unavailable in a deterministic framework.

4. AGENT CAUSAL LIBERTARIANISM AND AN OBJECTION FROM OUR BEST PHYSICAL THEORIES

What needs to be added to the event-causal libertarian story is a further causal involvement of the agent in the making of the decision, a causal involvement that would enhance her control in making a decision over what is present in eventcausal and deterministic contexts. It is this enhanced control that would solve the problem of the disappearing agent, which is highlighted by the luck objection against event-causal libertarianism. The agent-causal libertarian's solution is to specify a way in which the agent could have this enhanced control. The

suggested remedy is to reintroduce the agent as a cause, this time not merely as involved in events, but rather fundamentally as a substance (Chisholm 1976; O'Connor 2000; Clarke 2003). The agent-causal libertarian claims that we possess a special causal power—a power for an agent, fundamentally as a substance, to cause a decision without being causally determined to do so. The proposal is that if Anne had this power, by exercising it she would be able to settle which of the two competing decisions occurs—both of which remain as open possibilities given only the causal role of the events. In this way she would have the enhanced control required to be morally responsible for her decision.

But can agent-causal libertarianism be reconciled with what we would expect given our best physical theories? If the agent-causal position is true, then when an agent makes a free decision, she causes the decision without being causally determined to do so. On the path to action that results from this undetermined decision, changes in the physical world, for example in the agent's brain or some other part of her body, are produced. But if the physical world were generally governed by deterministic laws, it seems that here we would encounter divergences from these laws. For the changes in the physical world that result from the undetermined decision would themselves not be causally determined, and they would thus not be governed by the deterministic laws. One might object that it is possible that the physical changes that result from every free decision just happen to dovetail with what could in principle be predicted on the basis of the deterministic laws, so nothing actually happens that diverges from these laws (Kant 1781/1997: 532-46). But this proposal would seem to involve coincidences too wild to be believed. For this reason, agent-causal libertarianism is not plausibly reconciled with the physical world's being governed by deterministic laws.

On the standard interpretation of quantum mechanics, however, the physical world is not in fact deterministic, but is rather governed by probabilistic statistical laws. Some philosophers have defended the claim that agent-causal libertarianism can be reconciled with physical laws of this sort (Clarke 2003: 181). However, wild coincidences would also arise on this suggestion. Consider the class of possible actions each of which has a physical component whose antecedent probability of occurring is approximately 0.32. It would not violate the statistical laws in the sense of being logically incompatible with them if, for a large number of instances, the physical components in this class were not actually realized close to 32 percent of the time. Rather, the force of the statistical law is that for a large number of instances it is correct to expect physical components in this class to be realized close to 32 percent of the time. Are free choices on the agent-causal libertarian model compatible with what the statistical law leads us to expect about them? If they were, then for a large enough number of instances the possible actions in our class would almost certainly be freely chosen close to 32 percent of the time. But if the occurrence of these physical components were settled by the choices of agent-causes, then their actually being chosen close to 32 percent of the time would amount to a wild coincidence. The proposal that agent-caused free choices do not diverge from what the statistical laws predict for the physical components of our actions would run so sharply counter to what we would expect as to make it incredible.

At this point, the libertarian might propose that there actually do exist divergences from the probabilities that we would expect without the presence of agent-causes, and that these divergences are to be found at the interface between the agent-cause and that which it directly is likely to be found in the brain. The problem for this proposal, however, is that we have no evidence that such divergences occur. This difficulty, all by itself, provides a strong reason to reject this approach.

It is sometimes claimed that our experience of deliberating and choosing provides us with good evidence for the broader thesis that we have libertarian free will. Perhaps, then, if we could have libertarian free will only if we were agent causes, then this evidence from our experience would count in favor of the existence of divergences from what our best physical theories predict. But Spinoza remarks, "experience itself, no less than reason, teaches that men believe themselves free because they are conscious of their own actions, and ignorant of the causes by which they are determined..." (Spinoza 1677/1985: 496). Spinoza maintains that we believe our decisions are free only because we are ignorant of their causes. The lesson to draw from Spinoza here is that the evidence from experience that is apt to generate a belief that we have libertarian free will would be just the same if decisions were instead causally determined and we were ignorant of enough of their causes. For this reason, this evidence experience provides for our having libertarian free will is not especially impressive. This consideration counts strongly against the proposal that such evidence gives us reason to believe that the divergences in question exist.

On the other hand, nothing we've said conclusively rules out the claim that because we are agent causes, there exist such divergences. We do not have a complete understanding of the human neural system, and it may turn out that some human neural structures are significantly different from anything else in nature we understand, and that they serve to ground agent causation. This approach may be the best one for libertarians to pursue. But at this point we have no evidence that it will turn out to be correct.

Thus all versions of libertarianism face serious difficulties. Earlier, we saw that compatibilism is vulnerable to an argument from manipulation cases. The position that remains is hard incompatibilism, which denies that we have the sort of free will required for moral responsibility. The concern for this view is not, I think, that there is significant empirical evidence that it is false, or that there is a good argument that it is somehow incoherent, and false for that reason. Rather, the questions it faces are practical: What would life be like if we believed it was true? Is this a sort of life that we can tolerate?

5. HARD INCOMPATIBILISM AND WRONGDOING

Accepting hard incompatibilism demands giving up our ordinary view of ourselves as blameworthy for immoral actions and praiseworthy for actions

that are morally exemplary. At this point one might object that giving up our belief in moral responsibility would have very harmful consequences, perhaps so harmful that thinking and acting as if hard incompatibilism is true is not a feasible option. Thus even if the claim that we are morally responsible turns out to be false, there may yet be weighty practical reasons to believe that we are, or at least to treat people as if they were.

For instance, one might think that if we gave up the belief that people are blameworthy, we could no longer legitimately judge any actions as wrong or even bad, or as right or good. But this seems mistaken. Even if we came to believe that some perpetrator of genocide was not morally responsible because of some degenerative brain disease he had, we would still maintain that his actions were morally wrong, and that it was extremely bad that he acted as he did. So, in general, denying blameworthiness would not at the same time threaten judgments of wrongness or badness, and, likewise, denying praiseworthiness would not undermine assessments of rightness or goodness.

Perhaps treating wrongdoers as blameworthy is often required for effective moral education and improvement. If we resolved never to treat people as blameworthy, one might fear that we would be left with insufficient leverage to reform immoral behavior. Still, this option

would have us treat people as for example, expressing anger toward them because of what they have they do not deserve it, which would seem *prima facie* morally wrong. If people are not morally responsible for immoral behavior, treating them as if they were would seem to be unfair. However, it is possible to achieve moral reform by methods that would not be threatened by this sort of unfairness, and in ordinary situations such practices could arguably be as successful as those that presuppose moral responsibility. Instead of treating people as if they deserve blame, the hard incompatibilist can turn to moral admonition and encouragement, which presuppose only that the offender has done wrong. These methods can effectively communicate a sense of right and wrong and they can issue in salutary reform.

But does hard incompatibilism have resources adequate for contending with criminal behavior? Here it would appear to be at a disadvantage, and if so, practical considerations might yield strong reasons to treat criminals as if they were morally responsible. First of all, if hard incompatibilism is true, a retributivist justification for criminal punishment is unavailable, for it asserts that the criminal deserves pain or deprivation just for committing the crime, while hard incompatibilism denies this claim. And retributivism is one of the most naturally compelling ways to justify criminal punishment.

By contrast, a theory that justifies criminal punishment on the ground that punishment educates criminals morally is not threatened by hard incompatibilism specifically. So one might suggest that the hard incompatibilist could endorse a view of this kind. However, we lack significant empirical evidence that punishing criminals brings about moral education, and without such evidence, it would be wrong to punish them in order to achieve this goal. In general, it is wrong to harm a person for the sake of realizing some good in the absence of impressive evidence that the harm will produce the good. Moreover, even if we had impressive evidence that punishment was effective in morally educating criminals, we should prefer non-punitive ways of achieving this result, if they are available-whether or not criminals are morally responsible.

Deterrence theories have it that punishing criminals is justified for the reason that it deters future crime. The two most-discussed deterrence theories, the utilitarian version and the one that grounds the right to punish on the right to selfdefense, are not undermined by hard incompatibilism *per se*. Still, they are questionable on other grounds. The utilitarian theory, which claims that punishment is justified because it maximizes utility (i.e., the quantity of happiness or pleasure minus the quantity of unhappiness or pain), faces well-known challenges. It would seem at times to require punishing the innocent when doing so would maximize utility; in certain situations it would appear to prescribe punishment that is unduly severe; and it would authorize harming people merely as means to the well-being, in this case the safety, of others. The

sort of deterrence theory that grounds the right to punish in the right of individuals to defend themselves against immediate threats (Farrell 1985: 38-60) is also objectionable. For when a criminal is sentenced to punishment he is most often not an immediate threat to anyone, since he is then in the custody of the law, and this fact about his circumstances distinguishes him from those who can legitimately be harmed on the basis of the right of self-defense.

There is, however, an intuitively legitimate theory of crime prevention that is neither undercut by hard incompatibilism, nor threatened by other sort of considerations. This theory draws an analogy between the treatment of criminals and the treatment of carriers of dangerous diseases. Ferdinand Schoeman (1979) argues that if we have the right to quarantine carriers of serious communicable diseases to protect people, then for the same reason we also have the right

to isolate the criminally dangerous. Notice that quarantining a person can be justified when she is not morally responsible for being dangerous to others. If a child is infected with a deadly contagious virus that was transmitted to her before she was born, quarantine can still be legitimate. Now imagine that a serial killer poses a grave danger to a community. Even if he is not morally responsible for his crimes (say because no one is ever morally responsible), it would be as legitimate to isolate him as it is to quarantine a nonresponsible carrier of a serious communicable disease.

Clearly, it would be morally wrong to treat carriers of communicable diseases more severely than is required to protect people from the resulting threat. Similarly, it would be wrong to treat criminals more harshly than is required to protect society against the danger posed by them. Moreover, just as moderately dangerous diseases may allow for only measures less intrusive than quarantine, so moderately serious criminal tendencies might only justify responses less intrusive than detention. In addition, I suspect that a theory modeled on quarantine would not justify measures of the sort whose legitimacy is most in doubt, such as the death penalty or confinement in the worst prisons we have. Moreover, it would demand a degree of concern for the rehabilitation and well-being of the criminal that would alter much of current practice. Just as society must seek to cure the diseased it quarantines, so it would be required to try to rehabilitate the criminals it detains. In addition, if a criminal cannot be rehabilitated, and if protection of society demands his indefinite confinement, there would be no justification for making his life more miserable than needed to guard against the danger he poses.

6. MEANING IN LIFE

If hard incompatibilism is true, could we legitimately retain a sense of achievement for what makes our lives fulfilled, happy, satisfactory, or worthwhile, and our hold on our hopes for making these sorts of achievements in our lives? (Honderich 1988) It might be argued that if hard incompatibilism is true, there can be no genuine achievements, for an agent cannot have an achievement for which she is not also praiseworthy. However, achievement, and our hope for achievement, is not as closely connected to praiseworthiness as this objection supposes. If an agent hopes to achieve success in some project, and if she accomplishes what she hoped for, intuitively this outcome would be an achievement of hers even if she is not praiseworthy for it although at the same time the sense in which it is her achievement may be diminished. For example, if someone hopes that her efforts as a teacher will result in well-educated children, and they do, there remains a clear sense in which she has achieved what she hoped for—even if it turns out she is not praiseworthy for anything she does.

One might think that hard incompatibilism would instill an attitude of resignation to whatever the future holds in store. But this isn't clearly right. Even if what we know about our behavioral dispositions and our environment gives us reason to believe that our futures will turn out in a particular way, it can often be reasonable to hope that they will turn out differently. For this to be so, it may sometimes be important that we lack complete knowledge of our dispositions and environmental conditions. Imagine that someone reasonably believes that he has a disposition that might well be an impediment to realizing

something he hopes to achieve. However, because he does not know whether this disposition will in fact have this effect, it remains open for not ruled out by anything he knows or another disposition of his will allow him to transcend the impediment. For instance, imagine that someone aspires to become a successful politician, but he is concerned that his fear of public speaking will get in the way. He does not know whether this fear will in fact frustrate his ambition, since it is open for him that he will overcome this problem, perhaps due to a

disposition for resolute self-discipline in transcending obstacles of this sort. As a result, he might reasonably hope that he will get over his fear and succeed in his ambition. Given hard incompatibilism, if he in fact does overcome his problem and succeeds in political life, this will not be an achievement of his in as robust a sense as we might naturally suppose, but it will be his achievement in a substantial sense nonetheless.

Still, with Saul Smilansky one might contend that although determinism leaves room for a limited foundation of the sense of self-worth that derives from achievement or virtue, the hard incompatibilist's perspective can nevertheless be "extremely damaging to our view of ourselves, to our sense of achievement, worth, and self-respect," especially when it comes to achievement in the formation of one's own moral character. In response, Smilansky thinks that it would be best for us to foster the illusion that we have free will (Smilansky 2000). Now I agree that there is a kind of self-respect that presupposes an incompatibilist foundation, and that it would be undercut if hard incompatibilism were true. I question, however, whether Smilansky is right about how damaging it would be for us to give up this sort of self-respect, and whether his appeal to illusion is required.

First, note that our sense of self-worth—our sense that we have value and that our lives are worth living—is to a non-trivial extent due to features not produced by our will, let alone by free will. People place great value on natural beauty, native athletic ability, and intelligence, none of which have their source in our volition. To be sure, we also value efforts that are voluntary in the sense that they are willed by us—in productive work and altruistic behavior, and indeed, in the formation of moral character. However, does it matter very much to us that these voluntary efforts are also freely willed? Perhaps Smilansky overestimates how much we care.

Consider how someone comes to have a good moral character. It is not implausible that it is formed to a significant degree as a result of upbringing, and moreover, the belief that this is so is widespread. Parents typically regard themselves as having failed in raising their children if they turn out with immoral dispositions, and parents often take great care to bring their children up to prevent such a result. Accordingly, people often come to believe that they have the good moral character they do largely because they were raised with love and skill. But those who come to believe this about themselves seldom experience dismay because of it. People tend not to become dispirited upon coming to understand that their good moral character is not their own doing, and that they do not deserve a great deal of praise or respect for it. By contrast, they often come to feel more fortunate and thankful. Suppose, however, that there are some who would be overcome with dismay. Would it be justified or even desirable for them to foster the illusion that they nevertheless deserve praise and respect for producing their moral character? I suspect that most would eventually be able to accept the truth without incurring much loss. All of this, I think, would also hold for those who come to believe that they do not deserve praise and respect for producing their moral character because they are not, in general, morally responsible.

7. EMOTIONS, REACTIVE ATTITUDES, AND PERSONAL RELATIONSHIPS

Peter Strawson (1962) argues that the justification for judgments of blameworthiness and praiseworthiness has its foundation in what he calls the reactive attitudes, reactions to how people voluntarily behave—attitudes such as moral resentment, guilt, gratitude, forgiveness, and love. Moreover, because moral responsibility has

this kind of foundation, the truth or falsity of determinism is irrelevant to whether we are justified in regarding agents as morally responsible. This is because these reactive attitudes are required for the kinds of interpersonal relationships that make our lives meaningful, and so even

if we could give up the reactive attitudes we would never have sufficient practical reason to do so. Strawson believes that it is in fact psychologically impossible for us to give up the reactive attitudes altogether, but in a limited range of cases we can adopt what he calls the "objective attitude," a cold and calculating stance toward others, which he describes as follows:

To adopt the objective attitude to another human being is to see him, perhaps, as an object of social policy; as a subject for what, in a wide range of sense, might be called treatment; as something certainly to be taken account, perhaps precautionary account, of; to be managed or handled or cured or trained; perhaps simply to be avoided ... The objective attitude may be emotionally toned in many ways: it may include repulsion or fear, it may include pity or love, though not all kinds of love. But it cannot include the range of reactive feelings and attitudes which belong to involvement or participation with others in interpersonal human relationships; it cannot include resentment, gratitude, forgiveness, anger, or the sort of love which two adults can sometimes be said to feel reciprocally, for each other. (Strawson 1962)

If determinism did imperil the reactive attitudes, and we were able to relinquish them, Strawson suggests that we would face the prospect of adopting this objective attitude toward everyone, as a result of which our interpersonal relationships would be undermined. Since we have extremely good practical reasons for maintaining these relationships, we would never have sufficient practical reason to adopt the objective attitude in most cases, and hence we would never have sufficient reason to give up our reactive attitudes, and thus to stop regarding people as morally responsible.

Clearly, if we persistently maintained an objective attitude toward others, our relationships would be undermined. However, I deny that it would be appropriate to adopt this stance if we came to believe that hard incompatibilism were true. In my conception, some of the reactive attitudes would in fact be challenged by hard incompatibilism, for some of them, such as moral resentment and indignation, would have the false presupposition that the person who is the object of the attitude is morally responsible. But I claim that the reactive attitudes that we would want to retain either are not threatened by hard incompatibilism in this way, or else have analogues or aspects that would not have false presuppositions. The attitudes that would survive do not amount to the objective attitude, and they would be sufficient to sustain good human relationships.

It is plausible that to a certain degree moral resentment and indignation are beyond our power to affect. Even supposing that a hard incompatibilist is thoroughly committed to morality and rationality, and that she is admirably in control of her emotions, she might still be unable to eliminate these attitudes. Thus as hard incompatibilists we might expect people to be morally resentful in certain circumstances, and we would not regard them as morally responsible for it. But we also have the ability to prevent, temper, and sometimes to dispel moral resentment, and given a belief in hard incompatibilism, we might attempt such measures for the sake of morality and rationality. Modifications of this sort, assisted by a hard incompatibilist conviction, might well be good for interpersonal relationships.

It might be objected that in relationships moral resentment and indignation are crucial to effective communication of wrongdoing, and if we dispelled or modified these attitudes, relationships would be damaged. However, when a person is wronged in a relationship, she typically has further attitudes not threatened by hard incompatibilism, attitudes whose expression can play the communicative role in question. These attitudes include being alarmed or distressed about what another has done, and moral sadness or concern for him. Moral resentment, then, is not obviously required for effective communication in personal relationships.

Forgiveness might appear to presuppose that the person being forgiven is blameworthy, and if

this is so, this attitude would also be undercut by hard incompatibilism. But certain key features of forgiveness are not endangered by hard incompatibilism, and they are sufficient to sustain the role forgiveness has in relationships. Suppose a friend repeatedly mistreats you, and because of this you decide to end your relationship with him. However, he then apologizes to you, indicating his recognition that his actions were wrong, his wish that he had not mistreated you, and his commitment to refrain from the immoral behavior. Because of this you decide not to end the friendship. In this case, the feature of forgiveness that is consistent with hard incompatibilism is the willingness to cease to regard past immoral behavior as a reason to weaken or end a relationship. The aspect of forgiveness that is undermined by hard incompatibilism is the willingness to disregard the friend's blameworthiness. But since she has given up the belief that we are morally responsible, the hard incompatibilist no longer needs a willingness to disregard blameworthiness in order to foster good relationships.

One might object that hard incompatibilism imperils the self-directed attitudes of guilt and repentance, and that this would be especially bad for relationships. In the absence of guilt and repentance, we would not only be incapable of restoring relationships damaged because we have done wrong, but we would also be kept from restoring our moral integrity. For without the attitudes of guilt and repentance, we would lack the psychological mechanisms that can play these roles. But note first that it is because guilt essentially involves a belief that one is blameworthy that this attitude would be threatened by hard incompatibilism. It is for this reason that repentance would also seem to be (indirectly) threatened, for feeling guilty would appear to be required to motivate repentance. Imagine, however, that you have acted immorally; still because you endorse hard incompatibilism, you deny that you are blameworthy. Instead, you acknowledge that you were the agent of wrongdoing, you feel sad that you have done wrong, and you deeply regret having acted as you did. In addition, because you are committed to doing what is right and to your own moral improvement, you resolve not to act in this way in the future, and to seek out the help of others in sustaining your resolution. None of these measures are jeopardized by hard incompatibilism.

Gratitude would appear to presuppose that the person to whom one is grateful is morally responsible for a beneficial act, whereupon hard incompatibilism would undermine gratitude. But as in the case of forgiveness, certain aspects of this attitude would be unaffected, and these aspects can provide what is needed for good relationships. Gratitude involves, first of all, being thankful toward a person who has acted beneficially. It is true that being thankful toward someone usually involves the belief that she is praiseworthy for some action. Still, one can also be thankful to a small child for some kindness, without believing that she is morally responsible for it. This aspect of thankfulness could be retained even without the presupposition of praiseworthiness. Typically gratitude also involves joy as a response to what someone has done. But no feature of hard incompatibilism undermines being joyful and expressing joy when others are, for example, considerate or generous in one's behalf. Expressing joy can bring about the sense of harmony and goodwill often produced by gratitude, and thus here hard incompatibilism is not at a disadvantage.

Is the kind of love that mature adults have for each other in good relationships imperiled by hard incompatibilism, as Strawson's line of argument suggests? Consider first whether for loving someone it is important that the person who is loved has and exercises free will in the sense required for moral responsibility. Parents love their children rarely, if ever, for the reason

that they possess this sort of free will, or decide to do what is right by free will, or deserve to be loved due to freely willed choices. Moreover, when adults love each other, it is also very seldom, if at all, for these sorts of reasons. The reasons we love others are surely varied and complex. Besides moral character and behavior, features such as intelligence, appearance, style, and resemblance to others in one's personal history all might play a part. Suppose morally admirable qualities are particularly important in occasioning, enriching, and maintaining love.

Even if there is an aspect of love that we conceive as a deserved response to morally admirable qualities, it is unlikely that love would vanish or even be diminished if we came to believe that these qualities are not produced or sustained by freely willed decisions. Such admirable qualities are loveable whether or not we deserve praise for having them.

One might contend that we want to be freely loved by be loved by them as a result of their free will. Against this, the love parents have for their children typically comes about independently of the parents' will altogether, and we don't think that love of this sort is deficient. Kane recognizes this fact about parents' love, and he acknowledges that romantic love is similar in this respect. However, he maintains that there is a kind of love we very much want that would not exist if all love were causally determined by factors beyond our control (Kane 1996: 88). The plausibility of Kane's claim might be enhanced by reflecting on how you would react upon discovering that someone you love was causally determined to love you by, say, a benevolent manipulator.

Setting aside free will for a moment, when does the will play any role at all in engendering love? When a relationship is disintegrating, people will at times decide to try to restore the love they once had for one another. When a student finds herself in conflict with a roommate from the outset, she might choose to take steps to improve the relationship. When a marriage is arranged, the partners may decide to do what they can to love each other. In these kinds of circumstances we might want others to make a decision that might produce or maintain love. But this is not to say that we would want that decision to be freely willed in the sense required for moral responsibility. For it is not clear that value would be added by the decision's being free in this sense. Moreover, although in some circumstances we might want others to make decisions of this sort, we would typically prefer love that did not require such decisions. This is so not only for intimate romantic is quite obvious-but also for friendships and relationships between parents and children.

Suppose Kane's view could be defended, and we did want love that is freely willed in the sense required for moral responsibility. If we in fact desired love of this kind, then we would want a kind of love that is impossible if hard incompatibilism is true. Still, the sorts of love not challenged by hard incompatibilism are sufficient for good relationships. If we can aspire to the kind of love parents typically have for their children, or the type romantic lovers share, or the sort had by friends who are deeply devoted to each other, and whose friendship became close through their interactions, then the possibility of fulfillment through interpersonal relationships remains intact.

Hard incompatibilism, therefore, does not yield a threat to interpersonal relationships. It might challenge certain attitudes that typically have a role in such relationships. Moral resentment, indignation, and guilt would likely be irrational for a hard incompatibilist, since these attitudes would have presuppositions believed to be false. But these attitudes are either not required for good relationships, or they have analogues that could play their typical role. Moreover, love-the reactive attitude most essential to good interpersonal not seem threatened by hard incompatibilism at all. Love of another involves, fundamentally, wishing for the other's

good, taking on her aims and desires, and a desire to be together with her, and none of this is endangered by hard incompatibilism.

8. THE GOOD IN HARD INCOMPATIBILISM

Hard incompatibilism also promises substantial benefits for human life. Of all the attitudes associated with the assumption that we are morally responsible, anger seems most closely connected with it. Discussions about moral responsibility most often focus not on how we judge morally exemplary agents, but rather on how we regard those who are morally deficient. Examples designed to elicit a strong intuition that an agent is morally responsible most often feature an especially heinous action, and the intuition usually involves sympathetic anger. It may be,

then, that our attachment to the assumption that we are morally responsible derives to a significant degree from the role anger plays in our emotional lives. Perhaps we feel that giving up the assumption of responsibility is threatening because the rationality of anger would be undercut as a result.

The kind of anger at issue is the sort that is directed toward a person who is believed to have behaved comprises both moral resentment and indignation. Let us call this attitude moral anger. Not all anger is moral anger. One type of non-moral anger is directed toward someone because his abilities are lacking in some respect or because he has performed poorly in some situation. We are sometimes angry with machines for malfunctioning. At times our anger has no object. Still, most human anger is moral anger.

Moral anger comprises a significant part of our moral lives as we ordinarily conceive them. It motivates us to resist abuse, discrimination, and oppression. At the same time, expression of moral anger often has harmful effects, failing to contribute to the well-being either of those toward whom it is directed or of those expressing the anger. Often its expression is intended to cause little else than emotional or physical pain. Consequently, it has a tendency to damage relationships, impair the functioning of organizations, and unsettle societies. In extreme cases, it can motivate people to torture and kill.

The realization that expression of moral anger can be damaging gives rise to a strong demand that it be morally justified when it occurs. The demand to morally justify behavior that is harmful is generally a very strong one, and expressions of moral anger are often harmful. This demand is made more urgent by the fact that we are often attached to moral anger, and that we frequently enjoy expressing it. Most commonly we justify expression of moral anger by arguing that wrongdoers deserve it, and we believe that they deserve it because they are morally responsible for what they do. If hard incompatibilism is true, however, justification of this sort is undermined. Yet given the concerns to which expression of moral anger give rise, this may be a good thing.

Accepting hard incompatibilism is not likely to modify our attitudes to the extent that expression of moral anger ceases to be a problem for us. However, moral anger is often sustained and magnified by the belief that its object is morally responsible for immoral behavior. Destructive moral anger in relationships is nurtured in this way by the assumption that the other is blameworthy. The anger that fuels ethnic conflicts, for example, is almost always fostered by the conviction that a group of people deserves blame for past wrongs. Hard incompatibilism advocates giving up such beliefs because they are false. As a result, moral anger might decrease, and its expressions subside.

Would the benefits that would result if moral anger were modified in this way compensate for the losses that would ensue? Moral anger motivates us to oppose wrongful

behavior. Would we lose the motivation to oppose immorality? If for hard incompatibilist reasons the assumption that wrongdoers are blameworthy is withdrawn, the belief that they have in fact behaved immorally would not be threatened. Even if those who commit genocide are not morally responsible, their actions are nonetheless clearly horribly immoral, and a conviction that this is so would remain untouched. This, together with a commitment to oppose wrongdoing, would permit a resolve to resist abuse, discrimination, and oppression. Accepting hard incompatibilism would thus allow us to retain the benefits moral anger can also provide, while at the same time challenging its destructive effects.

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FREEDOM AND MORAL RESPONSIBILITY

PART FIVE

Morality and Its Critics

T

HESE DAYS THERE IS A good deal of skepticism about morality, skepticism that may take many forms. One challenge to morality comes from a famous theory of human motivation. The theory that human beings are so constituted by nature that they are incapable of desiring or pursuing anything but their own well-being as an end in itself is called psychological egoism. If "true morality" requires selfless devotion to others even at the cost of one's own interests, and if all persons are inherently selfish, as this theory claims, there may be no way to motivate persons to behave morally. Genuinely disinterested acts of benevolence, on this view, do not exist, although persons sometimes appear to be acting unselfishly when they take the interests of other people to be the means for promoting their own good. This theory of motivation should be distinguished from the doctrine called ethical egoism, which, as its name indicates, is not a theory about how human beings in fact act but rather a moral doctrine stating how they ought to act. According to this doctrine, one ought to pursue one's own well-being, and only one's own well-being, as an end in itself. A psychological egoist, insofar as he or she bothered with ethics at all, might be expected to be an ethical egoist; for if there is only one thing that we can pursue, there cannot be some other thing that we ought to pursue. Most psychological egoists, however, have sought some way to reconcile necessarily selfish motivation with the unselfish and even self-sacrificing conduct required by morality. Many argue, for example, that generally the best means to promote one's own happiness is to work for the public good or the happiness of others.

Joel Feinberg's essay on psychological egoism contains elementary distinctions and standard arguments reorganized and written in elementary terms. Because of its pedagogical intent, it might very well be used as the student's introduction to this section, or even perhaps to the whole volume. Most students, after much resistance, seemed to be persuaded by its arguments; but some of the best students (especially those who were psychology or biology majors) remained unconvinced to the end. Some of the students who were unconvinced by the arguments against psychological egoism would admit that the a priori arguments for

psychological egoism are fallacious, but insist that the biological sciences and particularly evolutionary theory may yet provide empirical evidence for the theory.

James Rachels, in a characteristically balanced critique, finds the difficulties in ethical egoism to be more impressive than its advantages. He calls it a "challenging" theory, worth taking seriously even though in the end he rejects it. Its importance, he claims, consists in the insights it provides into "the reasons why we do have obligations to other people." As Rachels sees it, ethical egoism exhibits the same fundamental flaw as racist and sexist theories: it advocates a policy of preferential treatment without citing a morally relevant factor that might justify such treatment. Each person is allowed (indeed, required) by ethical egoism to give priority to his or her own interests over those of everyone else. Unless some moral attribute can be identified to legitimate such treatment, egoism is, like racism and sexism, unjustified.

One may take a deeply skeptical attitude toward morality even if one allows that persons can be altruistically motivated, and allows as well that ethical standards require us to behave in ways that sometimes necessitate deep personal sacrifice. This form of moral skepticism assumes that we know what morality requires of us—occasional self-sacrifice—and proceeds to ask why it is rational, in such cases, to do what morality requires of us. If we can do better for ourselves by disregarding our moral duties, why shouldn't we do so? Suppose you find a wallet containing \$5000 in cash. Surely the morally right thing to do (at least according to the prevailing moral code) would be to return the wallet with the money to its owner. But would this truly be the most reasonable course of action? Think of what you have to gain: an expression of gratitude, some small satisfaction at having done your duty (mixed with nagging doubts that you are a fool), and maybe a small reward. Now compare these benefits with what you have to lose—namely, the \$5000 itself. It would seem that the losses involved in doing your duty far outweigh the gains. (Perhaps the example might be still more convincing if the money belonged not to a private person but to a great corporation or the federal government.) Looking at the matter in this way, wouldn't you be a fool to return the money? Isn't it unreasonable, indeed profoundly contrary to reason, voluntarily to choose a loss in preference to a gain for oneself? And yet this is what morality often seems to require of us: that we put the interests of other people ahead of our own. How, then, can it be reasonable to be moral?

One line of reply to this challenge immediately suggests itself. Not to return the property of others is tantamount to stealing it. If other people were ever to find out that you are, in effect, a thief, their opinion of you would drop drastically and your reputation might never fully recover. Moreover, if the authorities were to make this discovery about you, the consequences might be still worse. Even if no one ever found you out, you would have to live in continued anxiety and fear; and even if you got over that, you might become just a bit bolder in the face of subsequent temptations, until your very success finally would betray you, and you would be found out. The idea that it can pay to do what is morally wrong, in short, is usually a miscalculation.

Glaucon and Adeimantus, two characters in Plato's *Republic*, are not satisfied with this kind of answer. That there are advantages in having the reputation of being moral and upright (or "just" as they put it) is perfectly evident: what they wish to learn from Socrates is whether there are corresponding advantages in really being, as opposed to merely seeming, morally upright. If it is reasonable to be honest only because dishonesty doesn't pay, then, it would seem, it is reasonable to be honest only when dishonesty doesn't pay; the ideally wise person would then be the one who is able to have the "best of both worlds" by seeming, but not really being, moral.

Friedrich Nietzsche (1844-1900), a brilliant classicist and philosopher, takes up where

Plato's characters left off. Nietzsche sought to turn morality on its head. He is deeply skeptical about the claims of moralists, and thinks that the Judaeo-Christian conception of the virtues that we have inherited has things upside down. In an excerpt from his work *Beyond Good and Evil*, Nietzsche makes his case for the thought that morality has nothing to do with exemplifying such virtues as humility, forgiveness, and charity. These, he claims, originated in a cult of people who were oppressed, resented it, could do nothing about it, and so elevated the effects of their humiliations into virtues. Nietzsche's even deeper claim is that morality has no external, universal authoritative source. Nietzsche famously announced the death of God in an earlier work, and sought to undermine views which anchored their moral prescriptions in a divine or more objective source.

There is an important connection between Nietzsche's skepticism and yet another form of doubt about morality. This further form of moral skepticism begins by noting the existence of deep, apparently intractable disagreements that divide people on many ethical issues. Prospects for gaining consensus on issues of abortion, or capital punishment, or famine relief seem quite slim, even if those doing the talking are well-intentioned, open-minded, and knowledgeable about the topic under discussion. Many have inferred from this that ethics cannot be objective in the way that science or mathematics is. Disciplines that admit of objective truth appear capable of progress and broad consensus both on methods of inquiry and on a significant set of substantive propositions. Ethical subjectivists claim that we do not see such progress or consensus in ethics, and that therefore ethics is simply not an objective area of inquiry. According to one version of subjectivism (meta-ethical subjectivism), ethical judgments are neither true nor false they are simply expressions of commands, preferences or emotions, and as such are not even eligible candidates for truth. A different version (normative subjectivism) claims that ethical judgments can be true (or false), but that their truth depends entirely on whether they accurately report the sentiments of those who issue the judgments. As Russ Shafer-Landau points out, in his article that leads off the *Standards of Right Conduct* section, normative subjectivism is less attractive than its meta-ethical cousin. And while most of us act as if metaethical subjectivism were assess moral judgments as true or false, and deliberate and pursue investigations into ethical issues as if there were truth that awaited discovery-meta-ethical subjectivism is supported by a number of appealing arguments. Whether in the end it is entirely convincing is left to the reader to decide.

Shifting the focus from interpersonal ethical disagreements to intersocietal ones, Mary Midgley presents a consideration of ethical relativism, the view that actions are right if and only if they comport with the ultimate ethical standards of the society in which they are performed. This is a natural move to make for those who are convinced that ethics cannot be objective, but have doubts about the plausibility of ethical subjectivism. Rather than view each person as an equally good moral judge, as subjectivists do, relativists make cultural mores the ultimate ethical standards. Midgley offers us a very interesting test case with which to examine assumptions about our abilities to make valid cross-cultural moral assessments. In the end, she thinks that the relativists have overstated the difficulties in this area, and that we are able, in many cases, to rightly say of one social code that it is morally superior (or inferior) to another.

In our selection from *Nicomachean Ethics*, Aristotle offers us a view of ethics that has inspired contemporary philosophers to re-explore the merits of virtue ethics. Aristotle thinks that the central notion in ethics is virtue (as opposed, say, to duty, or happiness, or contract), and that virtue is a matter of knowing and being disposed to behave in accordance with the mean between vicious extremes. As Aristotle frankly says, being virtuous and gaining ethical know-how is not a

matter of simply following hard and fast rules, but rather of exercising one's judgment. Only the wise person, whose capacity for practical wisdom has been developed through experience and learning, will truly be in a position to exercise his judgment properly, and so determine, in hard cases, what is noble, fine or just.

Thomas Hobbes, the brilliant English philosopher (1588-1679), is often classed as an ethical egoist. But his is a sophisticated position, as readers will see for themselves, and he is just as often counted the founder of modern social contract theory. In his selection from *Leviathan*, Hobbes outlines a view according to which morality develops in response to the horrors of life without government (what he called the state of nature). Such a life he famously described as "solitary, poor, nasty, brutish and short," and he thought that any government, even despotism, was to be preferred to the state of nature. Hobbes claimed that there was no right or wrong, justice or injustice in the state of nature, and that the standards of morality are properly given by the terms of the social compact to which parties in the state of nature agree. Hobbes thought that each person's well-being would be enhanced by agreeing to limit his liberty in exchange for the security offered by life under law. His view has had a wide-ranging impact not only on ethics, but also on theories of justice, where social contract views have recently experienced renewed popularity.

An alternative form of social contract theory has emerged in the past three decades, inspired by John Rawls's now-classic work, *A Theory of Justice*. Rawls, perhaps the greatest political philosopher of the twentieth century, defends his egalitarian principles of justice by deriving them from a kind of hypothetical social contract. According to the contractarian method of identifying moral principles, a proposed principle of justice (for example, the utilitarian's, or Rawls's own) is correct, provided it would be chosen over any alternative principle that could be proposed to a group of normally self-interested, rational persons. We are to suppose that all these persons have gathered together voluntarily in an original position of equal power for the purpose of designing the institutions that will regulate their future lives. We are also to suppose that they wear a kind of veil of ignorance, which prevents them from knowing facts about their own future condition that could tempt them ("rationally self-interested" beings that they are) to base their choice on the desire to promote their own interest, to the disadvantage of others. These features, which are to ensure impartiality, are the most important features that distinguish Rawlsian from Hobbesian contractarianism. Whereas Hobbes starts with individuals in the state of nature, as they really are, with full knowledge of their social positions, Rawls banishes such knowledge. If these hypothetical choosers are neither rich nor poor, white nor black, male nor female, old nor young-so far as they know-then they cannot be lobbyists for any particular class interests and must choose their principles from a more disinterested vantage point. Justice, then, is the name for the principles such persons would choose to govern the design of their political and economic institutions.

Though not very popular these days among professional philosophers, the divine command theory enjoys broad allegiance among non-philosophers. This theory tells us that actions are right in virtue of being commanded by God. Because of a growing lack of confidence in theism, as well as worries that date back to Plato's time, the influence of divine command theory has waned considerably. But Philip Quinn, in an essay written expressly for this volume, gives a reasoned, even-handed defense of this theory, focusing much of his efforts on showing why the standard objections to it are less compelling than they have seemed. Quinn does not argue for God's existence in this paper, but does do a good deal to show why, if one is a theist, the divine command theory should be seen as a viable option.

Quinn's selection is followed by an excerpt from one of the greatest systematic philosophers of Western civilization, Immanuel Kant. We have excerpted here the greater part of Books I and II of his *Groundwork of the Metaphysics of Morals*. In Book I Kant develops the notion of a good will, and defends his claim that nothing else can be unconditionally good, that is, good in every instance, regardless of accompanying circumstances. The good will is simply the commitment to do one's duty for its own sake (rather than, say, because it will promote one's self-interest). But where does one's duty lie? In Book II Kant introduces his categorical imperative, a command of reason that is authoritative for moral agents regardless of their desires. Kant claims that the rightness or wrongness of an action lies not in the results it brings about, but instead in the principle that guides a person's conduct. Kant calls such a principle a maxim. The categorical imperative states that actions are right if and only if their maxim is such that the agent can will that everyone abide by it. In effect, the centerpiece of Kantian ethics is the directive not to make an exception of oneself-act only on those principles that one is willing to see everyone act on.

Kant's view is directly opposed to the utilitarian view of John Stuart Mill. Mill believes that pleasure is the sole intrinsic value, and he believes that our fundamental moral obligation is to produce as much pleasure as we can. But here the focus is not just on one's own pleasure; rather, in the famous utilitarian phrase, "everybody is to count for one and nobody as more than one." Because of its dual emphasis on impartiality and on pleasure, utilitarianism is sometimes denominated universalistic (as opposed to egoistic) hedonism. This view places priority on achieving the greatest happiness for the greatest number, another utilitarian catch-phrase, and thus locates the virtue of beneficence at the heart of ethics. Utilitarians sometimes seek to display the attractions of their view by asking a couple of apparently innocent questions: How could an action that produces the most happiness possibly fail to be right? And how could an action be right if another available action could have made people better off, that is, produced more pleasure?

Despite the apparently rhetorical nature of such questions, Kantians (and others) will find much to disagree with regarding the utilitarian theory. In fact, the contrast between Kant and Mill could not be sharper (though Mill insists that Kant's theory is best understood as a version of utilitarianism, a claim whose merits have been debated for over a century). Kant and Mill disagree about what has value for its own sake (the good will, or pleasure), about what makes actions right or wrong (proper intentions, or results), and about which virtue stands at the center of ethics (fairness, or beneficence).

We conclude our selections in normative ethics with the most famous effort to effect a compromise between the Kantian and Utilitarian theories. Sir David Ross, in his day the greatest translator of Aristotle's works, also found time to invent one of the few genuinely novel ethical theories of the twentieth century. He finds merit in the Kantian idea that there are sources of duty other than that of promoting greatest happiness, though he also agrees with utilitarians in saying that, nevertheless, it often is our duty to do what will maximize happiness. He can say such things because he believes that all of our moral principles are *prima facie*. *Prima facie* principles are those that may permissibly be broken in certain circumstances. Ross believed in ethical pluralism-rather than one single, absolute principle that lay at the foundations of ethics, there is a plurality, each of which is independent, and cannot be derived from the others. Such rules as those enjoining truth-telling, the repayment of debts, and promise-keeping are valid principles, though they may, in certain cases (which resist specification), take a back seat to other principles. These further principles (such as those enjoining beneficence, or the avoidance of harming

others) are also *prima facie*, and so may themselves be outweighed in some cases by competing principles.

As a way, in part, to test the implications of the proposed standards of right conduct, we conclude Part 5 with a section on Ethical Problems. The section starts off with Plato's *Crito*, the classic discussion of political obligation and the conditions (if any) under which civil disobedience is permissible. Set in Socrates' jail cell, as he awaits his execution, Socrates calmly resists his friend Crito's invitation to easily escape, justifying his refusal by invoking considerations that remain (2400 years later) the basis of most contemporary arguments regarding political obligation.

Martha Nussbaum next offers us an extended case study of the tenability of ethical relativism. Her focus is on the practice, still quite widespread, of female genital mutilation. Are our criticisms of such a practice the product merely of insular thinking, or are there universal moral standards that we can rely on to criticize the longstanding practices of other peoples? In a piece that characteristically combines sophisticated theorizing with an appreciation of the facts on the ground, Nussbaum echoes Midgley's earlier piece in thinking that we are, indeed, able to justifiably criticize the moral practices of other cultures.

We continue our survey of some ethical problems with two selections on issues of famine relief, one (by Onora O'Neill) that recommends a Kantian perspective, the other (by Peter Singer) displaying the recommendations that follow from utilitarian assumptions. Singer's piece, especially, forces us to look hard at our assumptions about what we own, and what we owe to others. If he is right, then we are morally obligated to give as much as we have, just shy of making ourselves as badly off as those we are intending to help. Following Singer's piece is another striking paper, written with an implicit utilitarian challenge. John Harris invites us to ponder the morality of what he calls a survival lottery. In societies that lack a sufficient number of donor organs to transplant to those in need, every citizen must participate in a lottery. If a citizen's number gets drawn, then he or she will be killed in order to distribute the vital organs. Although one person will surely die as a result, each organ will be distributed to a different person in need, thereby saving many more lives. Though this strikes us as repugnant, Harris claims that there is no morally relevant difference between such a lottery and the present state of affairs. If we had (say) five vital organs, and one person needed a transplant of all five to survive, while five others each needed just one organ to survive, we'd have no qualms about allowing the one to die so that the five may live. If the results are the same in the survival lottery and in real life—we can save five at the cost of one life—why is it OK to save five in the latter case but not the former? The answer, presumably, has to do with the claim that it is morally worse to kill people than to allow them to die. Utilitarians deny this, since the consequences of killing may be just as bad or good as those of letting die, and, for utilitarians, it is consequences that count. For those with different convictions, it is incumbent on you to identify a morally relevant difference that can explain the intuitions surrounding the acceptability of the survival lottery.

James Rachels, though not a utilitarian, takes up this very issue in his article on the topic of euthanasia, or mercy-killing. Rachels' article, published about thirty years ago in a pre-eminent medical journal, criticized the prevailing view among doctors that active euthanasia is immoral, though passive euthanasia need not be. Active euthanasia involves the intention, on the part of the doctor, to terminate the life of the patient for the patient's own good. In the present context, the discussion is carried on with the understanding that the proposed euthanasia is voluntary—that is, that the patient's decision is made on the basis of adequate information and in the absence of coercion. Whereas active euthanasia seeks to intervene in an ongoing sequence to

hasten the patient's death, passive euthanasia (also assumed here to be voluntary) involves the medical staffs decision, in conjunction with the patient, to allow the patient to die. Rachels argues that there is a morally relevant difference between active and passive euthanasia only if there is a morally relevant difference between killing and letting die. But, he argues, there is no such difference. Therefore if, as most people assume, passive euthanasia is morally acceptable (when voluntarily undertaken), then so too is active euthanasia.

Peter Singer next makes another appearance in a selection from his popular work *Animal Liberation*. Singer likens the political movement on behalf of animals to other progressive movements, such as the Women's Liberation or Black Liberation movements of the sixties and seventies. He thinks that the suffering of nonhuman animals is as morally important, in itself, as our own suffering, and offers several arguments designed to convince what he knows will be a skeptical audience. Perhaps his most powerful argument against view that species membership is in itself a morally important that there are no morally relevant differences between some non-human animals and some severely mentally impaired human beings. If one's species is not intrinsically important, and if the reflective, communicative, emotional or social abilities of such impaired humans is not any greater (and possibly worse) than that of a pig or a primate, then we must treat these beings in similar ways. Since one wouldn't unnaturally confine and prematurely kill and eat such humans, or conduct the sorts of experiments routinely performed on primates, then one shouldn't do this to these non-human animals, either. Those who object to Singer's conclusions will have to identify the morally relevant trait that distinguishes all human beings, no matter how impaired, from the rest of creation.

CHALLENGES TO MORALITY

Psychological Egoism

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From materials composed for philosophy students at Brown University, 1958.

A. THE THEORY

1. "Psychological egoism" is the name given to a theory widely held by ordinary people, and at one time almost universally accepted by political economists, philosophers, and psychologists, according to which all human actions when properly understood can be seen to be motivated by selfish desires. More precisely, psychological egoism is the doctrine that the only thing anyone is capable of desiring or pursuing ultimately (as an end in itself) is his own self-interest. No psychological egoist denies that people sometimes do desire things other than their own welfare the happiness of other people, for example; but all psychological egoists insist that people are capable of desiring the happiness of others only when they take it to be a means to their own happiness. In short, purely altruistic and benevolent actions and desires do not exist; but people sometimes appear to be acting unselfishly and disinterestedly when they take the interests of others to be means to the promotion of their own self-interest.

2. This theory is called psychological egoism to indicate that it is not a theory about what ought to be the case, but rather about what, as a matter of fact, is the case. That is, the theory claims to be a description of psychological facts, not a prescription of ethical ideals. It asserts, however, not merely that all men do as a contingent matter of fact "put their own interests first," but also that they are capable of nothing else, human nature being what it is. Universal selfishness is not just an accident or a coincidence on this view; rather, it is an unavoidable consequence of psychological laws.

The theory is to be distinguished from another doctrine, so-called "ethical egoism,"

according to which all people ought to pursue their own wellbeing. This doctrine, being a prescription of what ought to be the case, makes no claim to be a psychological theory of human motives; hence the word "ethical" appears in its name to distinguish it from psychological egoism.

3. There are a number of types of motives and desires which might reasonably be called "egoistic" or "selfish," and corresponding to each of them is a possible version of psychological egoism. Perhaps the most common version of the theory is that apparently held by Jeremy Bentham.¹ According to this version, all persons have only one ultimate motive in all their voluntary behavior and that motive is a selfish one; more specifically, it is one particular kind of selfish motive—namely, a desire for one's own pleasure. According to this version of the theory, "the only kind of ultimate desire is the desire to get or to prolong pleasant experiences, and to avoid or to cut short unpleasant experiences for oneself."² This form of psychological egoism is often given the cumbersome name psychological egoistic hedonism.

0. PRIMA FACIE REASONS IN SUPPORT OF THE THEORY

4. Psychological egoism has seemed plausible to many people for a variety of reasons, of which the following are typical:

a. "Every action of mine is prompted by motives or desires or impulses which are my motives and not somebody else's. This fact might be expressed by saying that whenever I act I am always pursuing my own ends or trying to satisfy my own desires. And from this we might pass on to—I am always pursuing something for myself or seeking my own satisfaction.' Here is what seems like a proper description of a man acting selfishly, and if the description applies to all actions of all men, then it follows that all men in all their actions are selfish."³

b. It is a truism that when a person gets what he wants he characteristically feels pleasure. This has suggested to many people that what we really want in every case is our own pleasure, and that we pursue other things only as a means.

c. Self-Deception. Often we deceive ourselves into thinking that we desire something fine or noble when what we really want is to be thought well of by others or to be able to congratulate ourselves, or to be able to enjoy the pleasures of a good conscience. It is a well-known fact that people tend to conceal their true motives from themselves by camouflaging them with words like "virtue," "duty," etc. Since we are so often misled concerning both our own real motives and the real motives of others, is it not reasonable to suspect that we might always be deceived when we think motives disinterested and altruistic? Indeed, it is a simple matter to explain away all allegedly unselfish motives: "Once the conviction that selfishness is universal finds root in a person's mind, it is very likely to burgeon out in a thousand corroborating generalizations. It will be discovered that a friendly smile is really only an attempt to win an approving nod from a more or less gullible recording angel; that a charitable deed is, for its performer, only an opportunity to congratulate himself on the good fortune or the cleverness that enables him to be charitable; that a public benefaction is just plain good business advertising. It will emerge that gods are worshipped only because they indulge men's selfish fears, or tastes, or hopes; that the 'golden rule' is no more than an eminently sound success formula; that social and political codes are created and subscribed to only because they serve to restrain other men's egoism as much as one's own, morality being only a special sort of 'racket' or intrigue using weapons of persuasion in place of bombs and machine guns. Under this interpretation of human nature, the categories of commercialism replace those of disinterested service and the spirit of the horse trader broods

over the face of the earth. ,4

d. Moral Education. Morality, good manners, decency, and other virtues must be teachable. Psychological egoists often notice that moral education and the inculcation of manners usually utilize what Bentham calls the "sanctions of pleasure and pain." "5 Children are made to acquire the civilizing virtues only by the method of enticing rewards and painful punishments. Much the same is true of the history of the race. People in general have been inclined to behave well only when it is made plain to them that there is "something in it for them." Is it not then highly probable that just such a mechanism of human motivation as Bentham describes must be presupposed by our methods of moral education?

C. CRITIQUE OF PSYCHOLOGICAL EGOISM: CONFUSIONS IN THE ARGUMENTS

5. Non-Empirical Character of the Arguments. If the arguments of the psychological egoist consisted for the most part of carefully acquired empirical evidence (well-documented reports of controlled experiments, surveys, interviews, laboratory data, and so on), then the critical

philosopher would have no business carping at them. After all, since psychological egoism purports to be a scientific theory of human motives, it is the concern of the experimental psychologist, not the philosopher, to accept or reject it. But as a matter of fact, empirical evidence of the required sort is seldom presented in support of psychological egoism. Psychologists, on the whole, shy away from generalizations about human motives which are so sweeping and so vaguely formulated that they are virtually incapable of scientific testing. It is usually the "armchair scientist" who holds the theory of universal selfishness, and his usual arguments are either based simply on his "impressions" or else are largely of a non-empirical sort. The latter are often shot full of a very subtle kind of logical confusion, and this makes their criticism a matter of special interest to the analytic philosopher.

6. The psychological egoist's first argument (4a, above) is a good example of logical confusion. It begins with a truism—namely, that all of my motives and desires are my motives and desires and not someone else's. (Who would deny this?) But from this simple tautology nothing whatever concerning the nature of my motives or the objective of my desires can possibly follow. The fallacy of this argument consists in its violation of the general logical rule that analytic statements (tautologies) cannot entail synthetic (factual) ones.⁶ That every voluntary act is prompted by the agent's own motives is a tautology; hence, it cannot be equivalent to "A person is always seeking something for himself" or "All of a person's motives are selfish," which are synthetic. What the egoist must prove is not merely:

(i) Every voluntary action is prompted by a motive of the agent's own.

but rather:

(ii) Every voluntary action is prompted by a motive of a quite particular kind, viz. a selfish one.

Statement (i) is obviously true, but it cannot all by itself give any logical support to statement (ii).

The source of the confusion in this argument is readily apparent. It is not the genesis of an action or the origin of its motives which makes it a "selfish" one, but rather the "purpose" of the act or the objective of its motives; not where the motive comes from (in voluntary actions it

always comes from the agent) but what it aims at determines whether or not it is selfish. There is surely a valid distinction between voluntary behavior, in which the agent's action is motivated by purposes of his own, and selfish behavior in which the agent's motives are of one exclusive sort. The egoist's argument assimilates all voluntary action into the class of selfish action, by requiring, in effect, that an unselfish action be one which is not really motivated at all. In the words of Lucius Garvin, "to say that an act proceeds from our own ... desire is only to say that the act is our own. To demand that we should act on motives that are not our own is to ask us to make ourselves living contradictions in terms."⁷

7. But if argument 4a fails to prove its point, argument 4b does no better. From the fact that all our successful actions (those in which we get what we were after) are accompanied or followed by pleasure it does not follow, as the egoist claims, that the objective of every action is to get pleasure for oneself. To begin with, the premise of the argument is not, strictly speaking, even true. Fulfillment of desire (simply getting what one was after) is no guarantee of satisfaction (pleasant feelings of gratification in the mind of the agent). Sometimes when we get what we want we also get, as a kind of extra dividend, a warm, glowing feeling of contentment; but often, far too often, we get no dividend at all, or, even worse, the bitter taste of ashes. Indeed, it has been said that the characteristic psychological problem of our time is the dissatisfaction that attends the fulfillment of our very most powerful desires.

Even if we grant, however, for the sake of argument, that getting what one wants usually yields satisfaction, the egoist's conclusion does not follow. We can concede that we normally get pleasure (in the sense of satisfaction) when our desires are satisfied, no matter what our desires are for; but it does not follow from this roughly accurate generalization that the only thing we ever desire is our own satisfaction. Pleasure may well be the usual accompaniment of all actions in which the agent gets what he wants; but to infer

from this that what the agent always wants is his own pleasure is like arguing, in William James's example,⁸ that because an ocean liner constantly consumes coal on its trans-Atlantic passage that therefore the purpose of its voyage is to consume coal. The immediate inference from even constant accompaniment to purpose (or motive) is always a non sequitur.

Perhaps there is a sense of "satisfaction" (desire fulfillment) such that it is certainly and universally true that we get satisfaction whenever we get what we want. But satisfaction in this sense is simply the "coming into existence of that which is desired." Hence, to say that desire fulfillment always yields "satisfaction" in this sense is to say no more than that we always get what we want when we get what we want, which is to utter a tautology like "a rose is a rose." It can no more entail a synthetic truth in psychology (like the egoistic thesis) than "a rose is a rose" can entail significant information in botany.

8. Disinterested Benevolence. The fallacy in argument 4b then consists, as Garvin puts it, "in the supposition that the apparently unselfish desire to benefit others is transformed into a selfish one by the fact that we derive pleasure from carrying it out."⁹ Not only is this argument fallacious; it also provides us with a suggestion of a counterargument to show that its conclusion (psychological egoistic hedonism) is false. Not only is the presence of pleasure (satisfaction) as a by-product of an action no proof that the action was selfish; in some special cases it provides rather conclusive proof that the action was unselfish. For in those special cases the fact that we get pleasure from a particular action presupposes that we desired something else-something other than our own pleasure-as an end in itself and not merely as a means to our own pleasant state of mind.

This way of turning the egoistic hedonist's argument back on him can be illustrated by

taking a typical egoist argument, one attributed (perhaps apocryphally) to Abraham Lincoln, and then examining it closely:

Mr. Lincoln once remarked to a fellow-passenger on an old-time mud-coach that all men were prompted by selfishness in doing good. His fellow-passenger was antagonizing this position when they were passing over a corduroy bridge that spanned a slough. As they crossed this bridge they espied an old razor-backed sow on the bank making a terrible noise because her pigs had got into the slough and were in danger of drowning. As the old coach began to climb the hill, Mr. Lincoln called out, "Driver, can't you stop just a moment?" Then Mr. Lincoln jumped out, ran back and lifted the little pigs out of the mud and water and placed them on the bank. When he returned, his companion remarked: "Now Abe, where does selfishness come in on this little episode?" "Why, bless your soul Ed, that was the very essence of selfishness. I should have had no peace of mind all day had I gone on and left that suffering old sow worrying over those pigs. I did it to get peace of mind, don't you see?"¹⁰

If Lincoln had cared not a whit for the welfare of the little pigs and their "suffering" mother, but only for his own "peace of mind," it would be difficult to explain how he could have derived pleasure from helping them. The very fact that he did feel satisfaction as a result of helping the pigs presupposes that he had a preexisting desire for something other than his own happiness. Then when that desire was satisfied, Lincoln of course derived pleasure. The object of Lincoln's desire was not pleasure; rather pleasure was the consequence of his preexisting desire for something else. If Lincoln had been wholly indifferent to the plight of the little pigs as he claimed, how could he possibly have derived any pleasure from helping them? He could not have achieved peace of mind from rescuing the pigs, had he not a prior concern-on which his peace of mind depended-for the welfare of the pigs for its own sake.

In general, the psychological hedonist analyzes apparent benevolence into a desire for "benevolent pleasure." No doubt the benevolent person does get pleasure from his benevolence, but in most cases, this is only because he has previously desired the good of some person, or animal, or mankind at large. Where there is no such desire, benevolent conduct is not generally found to give pleasure to the agent.

9. Malevolence. Difficult cases for the psychological egoist include not only instances of disinterested benevolence, but also cases of "disinterested malevolence." Indeed, malice and hatred are

generally no more "selfish" than benevolence. Both are motives likely to cause an agent to sacrifice his own interests-in the case of benevolence, in order to help someone else, in the case of malevolence in order to harm someone else. The selfish person is concerned ultimately only with his own pleasure, happiness, or power; the benevolent person is often equally concerned with the happiness of others; to the malevolent person, the injury of another is often an end in itself-an end to be pursued sometimes with no thought for his own interests. There is reason to think that people have as often sacrificed themselves to injure or kill others as to help or to save others, and with as much "heroism" in the one case as in the other. The unselfish nature of malevolence was first noticed by the Anglican Bishop and moral philosopher Joseph Butler (1692-1752), who regretted that people are no more selfish than they are."

10. Lack of Evidence for Universal SelfDeception. The more cynical sort of psychological egoist who is impressed by the widespread phenomenon of self-deception (see 4c above) cannot be so quickly disposed of, for he has committed no logical mistakes. We can only argue that the acknowledged frequency of self-deception is insufficient evidence for his universal generalization. His argument is not fallacious, but inconclusive.

No one but the agent himself can ever be certain what conscious motives really prompted his action, and where motives are disreputable, even the agent may not admit to himself the true nature of his desires. Thus, for every apparent case of altruistic behavior, the psychological egoist can argue, with some plausibility, that the true motivation might be selfish, appearance to the contrary. Philanthropic acts are really motivated by the desire to receive gratitude; acts of self-sacrifice, when truly understood, are seen to be motivated by the desire to feel selfesteem; and so on. We must concede to the egoist that all apparent altruism might be deceptive in this way; but such a sweeping generalization requires considerable empirical evidence, and such evidence is not presently available.

11. The "Paradox of Hedonism" and Its Consequences for Education. The psychological egoistic Hedonist (e.g., Jeremy Bentham) has the simplest possible theory of human motivation. According to this variety of egoistic theory, all human motives without exception can be reduced to one—namely, the desire for one's own pleasure. But this theory, despite its attractive simplicity, or perhaps because of it, involves one immediately in a paradox. Astute observers of human affairs from the time of the ancient Greeks have often noticed that pleasure, happiness, and satisfaction are states of mind which stand in a very peculiar relation to desire. An exclusive desire for happiness is the surest way to prevent happiness from coming into being. Happiness has a way of "sneaking up" on persons when they are preoccupied with other things; but when persons deliberately and single-mindedly set off in pursuit of happiness, it vanishes utterly from sight and cannot be captured. This is the famous "paradox of hedonism": the singleminded pursuit of happiness is necessarily selfdefeating, for the way to get happiness is to forget it; then perhaps it will come to you. If you aim exclusively at pleasure itself, with no concern for the things that bring pleasure, then pleasure will never come. To derive satisfaction, one must ordinarily first desire something other than satisfaction, and then find the means to get what one desires.

To feel the full force of the paradox of hedonism the reader should conduct an experiment in his imagination. Imagine a person (let's call him "Jones") who is, first of all, devoid of intellectual curiosity. He has no desire to acquire any kind of knowledge for its own sake, and thus is utterly indifferent to questions of science, mathematics, and philosophy. Imagine further that the beauties of nature leave Jones cold: he is unimpressed by the autumn foliage, the snow-capped mountains, and the rolling oceans. Long walks in the country on spring mornings and skiing forays in the winter are to him equally a bore. Moreover, let us suppose that Jones can find no appeal in art. Novels are dull, poetry a pain, paintings nonsense and music just noise. Suppose further that Jones has neither the participant's nor the spectator's passion for baseball, football, tennis, or any other sport. Swimming to him is a cruel aquatic form of calisthenics, the sun only a cause of sunburn. Dancing

is coeducational idiocy, conversation a waste of time, the other sex an unappealing mystery. Politics is a fraud, religion mere superstition; and the misery of millions of underprivileged human beings is nothing to be concerned with or excited about. Suppose finally that Jones has no talent for any kind of handicraft, industry, or commerce, and that he does not regret that fact.

What then is Jones interested in? He must desire something. To be sure, he does. Jones has an overwhelming passion for, a complete preoccupation with, his own happiness. The one exclusive desire of his life is to be happy. It takes little imagination at this point to see that Jones's one desire is bound to be frustrated. People who—like Jones—most hotly pursue their own happiness are the least likely to find it. Happy people are those who successfully pursue such

things as aesthetic or religious experience, selfexpression, service to others, victory in competitions, knowledge, power, and so on. If none of these things in themselves and for their own sakes mean anything to a person, if they are valued at all then only as a means to one's own pleasant states of mind-then that pleasure can never come. The way to achieve happiness is to pursue something else.

Almost all people at one time or another in their lives feel pleasure. Some people (though perhaps not many) really do live lives which are on the whole happy. But if pleasure and happiness presuppose desires for something other than pleasure and happiness, then the existence of pleasure and happiness in the experience of some people proves that those people have strong desires for something other than their own happiness-egoistic hedonism to the contrary.

The implications of the "paradox of hedonism" for educational theory should be obvious. The parents least likely to raise a happy child are those who, even with the best intentions, train their child to seek happiness directly. How often have we heard parents say:

I don't care if my child does not become an intellectual, or a sports star, or a great artist. I just want her to be a plain average sort of person. Happiness does not require great ambitions and great frustrations; it's not worth it to suffer and become neurotic for the sake of science, art, or do-goodism. I just want my child to be happy.

This can be a dangerous mistake, for it is the child (and the adult for that matter) without "outerdirected" interests who is the most likely to be unhappy. The pure egoist would be the most wretched of persons.

The educator might well beware of "life adjustment" as the conscious goal of the educational process for similar reasons. "Life adjustment" can be achieved only as a by-product of other pursuits. A whole curriculum of "life adjustment courses" unsupplemented by courses designed to incite an interest in things other than life adjustment would be tragically self-defeating.

As for moral education, it is probably true that punishment and reward are indispensable means of inculcation. But if the child comes to believe that the sole reasons for being moral are that he will escape the pain of punishment thereby and/or that he will gain the pleasure of a good reputation, then what is to prevent him from doing the immoral thing whenever he is sure that he will not be found out? While punishment and reward then are important tools for the moral educator, they obviously have their limitations. Beware of the man who does the moral thing only out of fear of pain or love of pleasure. He is not likely to be wholly trustworthy. Moral education is truly successful when it produces persons who are willing to do the right thing simply because it is right, and not merely because it is popular or safe.

12. Pleasure as Sensation. One final argument against psychological hedonism should suffice to put that form of the egoistic psychology to rest once and for all. The egoistic hedonist claims that all desires can be reduced to the single desire for one's own pleasure. Now the word "pleasure" is ambiguous. On the one hand, it can stand for a certain indefinable, but very familiar and specific kind of sensation, or more accurately, a property of sensations; and it is generally, if not exclusively, associated with the senses. For example, certain taste sensations such as sweetness, thermal sensations of the sort derived from a hot bath or the

feel of the August sun while one lies on a sandy beach, erotic sensations, olfactory sensations (say) of the fragrance of flowers or perfume, and tactual and kinesthetic sensations from a good massage, are all pleasant in this sense. Let us call this sense of "pleasure," which is the converse of "physical pain," pleasure,.

On the other hand, the word "pleasure" is often used simply as a synonym for

"satisfaction" (in the sense of gratification, not mere desire fulfillment.) In this sense, the existence of pleasure presupposes the prior existence of desire. Knowledge, religious experience, aesthetic expression, and other so-called "spiritual activities" often give pleasure in this sense. In fact, as we have seen, we tend to get pleasure in this sense whenever we get what we desire, no matter what we desire. The masochist even derives pleasure (in the sense of "satisfaction") from his own physically painful sensations. Let us call the sense of "pleasure" which means "satisfaction"-pleasurez.

Now we can evaluate the psychological hedonist's claim that the sole human motive is a desire for one's own pleasure, bearing in mind (as he often does not) the ambiguity of the word "pleasure." First, let us take the hedonist to be saying that it is the desire for pleasure, (pleasant sensation) which is the sole ultimate desire of all people and the sole desire capable of providing a motive for action. Now I have little doubt that all (or most) people desire their own pleasure, sometimes. But even this familiar kind of desire occurs, I think, rather rarely. When I am very hungry, I often desire to eat, or, more specifically, to eat this piece of steak and these potatoes. Much less often do I desire to eat certain morsels simply for the sake of the pleasant gustatory sensations they might cause. I have, on the other hand, been motivated in the latter way when I have gone to especially exotic (and expensive) French or Chinese restaurants; but normally, pleasant gastronomic sensations are simply a happy consequence or by-product of my eating, not the antecedently desired objective of my eating. There are, of course, others who take gustatory sensations far more seriously: the gourmet who eats only to savor the textures and flavors of fine foods, and the wine fancier who "collects" the exquisitely subtle and very pleasant tastes of rare old wines. Such people are truly absorbed in their taste sensations when they eat and drink, and there may even be some (rich) persons whose desire for such sensations is the sole motive for eating and drinking. It should take little argument, however, to convince the reader that such persons are extremely rare.

Similarly, I usually derive pleasure from taking a hot bath, and on occasion (though not very often) I even decide to bathe simply for the sake of such sensations. Even if this is equally true of everyone, however, it hardly provides grounds for inferring that no one ever bathes from any other motive. It should be empirically obvious that we sometimes bathe simply in order to get clean, or to please others, or simply from habit.

The view then that we are never after anything in our actions but our own pleasure—that all people are complete "gourmets" of one sort or another—is not only morally cynical; it is also contrary to common sense and everyday experience. In fact, the view that pleasant sensations play such an enormous role in human affairs is so patently false, on the available evidence, that we must conclude that the psychological hedonist has the other sense of "pleasure"—satisfaction in mind when he states his thesis. If, on the other hand, he really does try to reduce the apparent multitude of human motives to the one desire for pleasant sensations, then the abundance of historical counterexamples justifies our rejection out of hand of his thesis. It surely seems incredible that the Christian martyrs were ardently pursuing their own pleasure when they marched off to face the lions, or that what the Russian soldiers at Stalingrad "really" wanted when they doused themselves with gasoline, ignited themselves, and then threw the flaming torches of their own bodies on German tanks, was simply the experience of pleasant physical sensations.

13. Pleasure as Satisfaction. Let us consider now the other interpretation of the hedonist's thesis, that according to which it is one's own pleasure² (satisfaction) and not merely pleasure, (pleasant sensation) which is the sole ultimate

objective of all voluntary behavior. In one respect, the "satisfaction thesis" is even less plausible than the "physical sensation thesis"; for the latter at least is a genuine empirical hypothesis, testable in experience, though contrary to the facts which experience discloses. The former, however, is so confused that it cannot even be completely stated without paradox. It is, so to speak, defeated in its own formulation. Any attempted explication of the theory that all men at all times desire only their own satisfaction leads to an infinite regress in the following way:

"All men desire only satisfaction."

"Satisfaction of what?"

"Satisfaction of their desires."

"Their desires for what?"

"Their desires for satisfaction."

"Satisfaction of what?"

"Their desires."

"For what?"

"For satisfaction"-etc., ad infinitum.

In short, psychological hedonism interpreted in this way attributes to all people as their sole motive a wholly vacuous and infinitely self-defeating desire. The source of this absurdity is in the notion that satisfaction can, so to speak, feed on itself, and perform the miracle of perpetual selfregeneration in the absence of desires for anything other than itself.

To summarize the argument of sections 12 and 13: The word "pleasure" is ambiguous. Pleasures means a certain indefinable characteristic of physical sensation. Pleasure² refers to the feeling of satisfaction that often comes when one gets what one desires whatever be the nature of that which one desires. Now, if the hedonist means pleasure, when he says that one's own pleasure is the ultimate objective of all of one's behavior, then his view is not supported by the facts. On the other hand, if he means pleasure², then his theory cannot even be clearly formulated, since it leads to the following infinite regress: "I desire only satisfaction of my desire for satisfaction of my desire for satisfaction ... etc., ad infinitum." I conclude then that psychological hedonism (the most common form of psychological egoism), however interpreted, is untenable.

D. CRITIQUE OF PSYCHOLOGICAL EGOISM: UNCLEAR LOGICAL STATUS OF THE THEORY

14. There remain, however, other possible forms of the egoistic psychology. The egoist might admit that not all human motives can be reduced to the one ultimate desire for one's own pleasure, or happiness, and yet still maintain that our ultimate motives, whether they be desire for happiness (J. S. Mill), self-fulfillment (Aristotle), power (Hobbes), or whatever, are always self-regarding motives. He might still maintain that, given our common human nature, wholly disinterested action impelled by exclusively other-regarding motives is psychologically impossible, and that therefore there is a profoundly important sense in which it is true that, whether they be hedonists or not, all people are selfish.

Now it seems to me that this highly paradoxical claim cannot be finally evaluated until it is properly understood, and that it cannot be properly understood until one knows what the psychological egoist is willing to accept as evidence either for or against it. In short, there are two things that must be decided: (a) whether the theory is true or false and (b) whether its truth or falsity (its truth value) depends entirely on the meanings of the words in which it is expressed or whether it is made true or false by certain facts, in this case the facts of psychology.

15. Analytic Statements. Statements whose truth is determined solely by the meanings of the words in which they are expressed, and thus can be held immune from empirical evidence, are often called analytic statements or tautologies. The following are examples of tautologies:

- (1) All bachelors are unmarried.
- (2) All effects have causes.
- (3) Either Providence is the capital of Rhode Island or it is not.

The truth of (1) is derived solely from the meaning of the word "bachelor," which is defined (in part) as "unmarried man." To find out whether (1) is true or false we need not conduct

interviews, compile statistics, or perform experiments. All empirical evidence is superfluous and irrelevant; for if we know the meanings of "bachelor" and "unmarried," then we know not only that (1) is true, but that it is necessarily true i.e., that it cannot possibly be false, that no future experiences or observations could possibly upset it, that to deny it would be to assert a logical contradiction. But notice that what a tautology gains in certainty ("necessary truth") it loses in descriptive content. Statement (1) imparts no information whatever about any matter of fact; it simply records our determination to use certain words in a certain way. As we say, "It is true by definition."

Similarly, (2) is (necessarily) true solely in virtue of the meanings of the words "cause" and "effect" and thus requires no further observations to confirm it. And of course, no possible observations could falsify it, since it asserts no matter of fact. And finally, statement (3) is (necessarily) true solely in virtue of the meaning of the English expression "either ... or." Such terms as "either ... or," "If... then," "and," and "not" are called by logicians "logical constants." The definitions of logical constants are made explicit in the so-called "laws of thought" the law of contradiction, the law of the excluded middle, and the law of identity. These "laws" are not laws in the same sense as are (say) the laws of physics. Rather, they are merely consequences of the definitions of logical constants, and as such, though they are necessarily true, they impart no information about the world. "Either Providence is the capital of Rhode Island or it is not" tells us nothing about geography; and "Either it is now raining or else it is not" tells us nothing about the weather. You don't have to look at a map or look out the window to know that they are true. Rather, they are known to be true a priori (independently of experience); and, like all (or many) a priori statements, they are vacuous, i.e., devoid of informative content.

The denial of an analytic statement is called a contradiction. The following are typical examples of contradictions: "Some bachelors are married," "Some causes have no effects," "Providence both is and is not the capital of Rhode Island." As in the case of tautologies, the truth value of contradictions (their falsehood) is logically necessary, not contingent on any facts of experience, and uninformative. Their falsity is derived from the meanings (definitions) of the words in which they are expressed.

16. Synthetic Statements. On the other hand, statements whose truth or falsity is derived not from the meanings of words but rather from the facts of experience (observations) are called synthetic.¹³ Prior to experience, there can be no good reason to think either that they are true or that they are false. That is to say, their truth value is contingent; and they can be confirmed or disconfirmed only by empirical evidence,¹⁴ i.e., controlled observations of the world. Unlike analytic statements, they do impart information about matters of fact. Obviously, "It is raining in Newport now," if true, is more informative than "Either it is raining in Newport now or it is not," even though the former could be false, while the latter is necessarily true. I take the following to be examples of synthetic (contingent) statements:

- (1') All bachelors are neurotic.
- (2') All events have causes.
- (3') Providence is the capital of Rhode Island.
- (3'') Newport is the capital of Rhode Island.

Statement (3') is true; (3'') is false; and (1') is a matter for a psychologist (not for a philosopher) to decide; and the psychologist himself can only decide empirically, i.e., by making many observations. The status of (2') is very difficult and its truth value is a matter of great controversy. That is because its truth or falsity depends on all the facts ("all events"); and, needless to say, not all of the evidence is in.

17. Empirical Hypotheses. Perhaps the most interesting subclass of synthetic statements are those generalizations of experience of the sort characteristically made by scientists; e.g., "All released objects heavier than air fall," "All swans are white," "All men have Oedipus complexes." I shall call such statements "empirical hypotheses" to indicate that their function is to sum up past experience and enable us successfully to predict or anticipate future experience.'-'; They are never logically certain, since it is always at

least conceivable that future experience will disconfirm them. For example, zoologists once believed that all swans are white, until black swans were discovered in Australia. The most important characteristic of empirical hypotheses for our present purposes is their relation to evidence. A person can be said to understand an empirical hypothesis only if he knows how to recognize evidence against it. If a person asserts or believes a general statement in such a way that he cannot conceive of any possible experience which he would count as evidence against it, then he cannot be said to be asserting or believing an empirical hypothesis. We can refer to this important characteristic of empirical hypotheses as falsifiability in principle.

Some statements only appear to be empirical hypotheses but are in fact disguised tautologies reflecting the speaker's determination to use words in certain (often eccentric) ways. For example, a zoologist might refuse to allow the existence of "Australian swans" to count as evidence against the generalization that all swans are white, on the grounds that the black Australian swans are not "really" swans at all. This would indicate that he is holding whiteness to be part of the definition of "swan," and that therefore, the statement "All swans are white" is, for him, "true by definition"-and thus just as immune from counterevidence as the statement "All spinsters are unmarried." Similarly, most of us would refuse to allow any possible experience to count as evidence against " $2 + 2 = 4$," or "Either unicorns exist or they do not," indicating that the propositions of arithmetic and logic are not empirical hypotheses.

18. Ordinary Language and Equivocation. Philosophers, even more than ordinary people, are prone to make startling and paradoxical claims that take the form of universal generalizations and hence resemble empirical hypotheses. For example, "All things are mental (there are no physical objects)," "All things are good (there is no evil)," "All voluntary behavior is selfish," etc. Let us confine our attention for the moment to the latter which is a rough statement of psychological egoism. At first sight, the statement "All voluntary behavior is selfish" seems obviously false. One might reply to the psychological egoist in some such manner as this:

I know some behavior, at least, is unselfish, because I saw my Aunt Emma yesterday give her last cent to a beggar. Now she will have to go a whole week with nothing to eat. Surely, that

was not selfish of her.

Nevertheless, the psychological egoist is likely not to be convinced, and insist that, in this case, if we knew enough about Aunt Emma, we would learn that her primary motive in helping the beggar was to promote her own happiness or assuage her own conscience, or increase her own self-esteem, etc. We might then present the egoist with even more difficult cases for his martyrs, military heroes, patriots, and others who have sacrificed themselves for a cause. If psychological egoists nevertheless refuse to accept any of these as examples of unselfish behavior, then we have a right to be puzzled about what they are saying. Until we know what they would count as unselfish behavior, we can't very well know what they mean when they say that all voluntary behavior is selfish. And at this point we may suspect that they are holding their theory in a "privileged position"-that of immunity to evidence, that they would allow no conceivable behavior to count as evidence against it. What they say then, if true, must be true in virtue of the way they define-or redefine-the word "selfish." And in that case, it cannot be an empirical hypothesis.

If what the psychological egoist says is "true by redefinition," then I can "agree" with him and say "It is true that in your sense of the word 'selfish' my Aunt Emma's behavior was selfish; but in the ordinary sense of 'selfish,' which implies blameworthiness, she surely was not selfish." There is no point of course in arguing about a mere word. The important thing is not what particular words a person uses, but rather whether what he wishes to say in those words is true. Departures from ordinary language can often be justified by their utility for certain purposes; but they are dangerous when they invite equivocation. The psychological egoist may be saying

something which is true when he says that Emma is selfish in his sense, but if he doesn't realize that his sense of "selfish" differs from the ordinary one, he may be tempted to infer that Emma is selfish in the ordinary sense which implies blameworthiness; and this of course would be unfair and illegitimate. It is indeed an extraordinary extension of the meaning of the word "self-indulgent" (as C. G. Chesterton remarks somewhere) which allows a philosopher to say that a man is self-indulgent when he wants to be burned at the stake.

19. The Fallacy of the Suppressed Correlative. Certain words in the English language operate in pairs-e.g., "selfish-unselfish," "good-bad," "large -small," "mental-physical." To assert that a thing has one of the above characteristics is to contrast it with the opposite in the pair. To know the meaning of one term in the pair, we must know the meaning of the correlative term with which it is contrasted. If we could not conceive of what it would be like for a thing to be bad, for example, then we could not possibly understand what is being said of a thing when it is called "good." Similarly, unless we had a notion of what it would be like for action to be unselfish, we could hardly understand the sentence "So-and-so acted selfishly"; for we would have nothing to contrast "selfishly" with. The so-called "fallacy of the suppressed correlative" 16 is committed by a person who consciously or unconsciously redefines one of the terms in a contrasting pair in such a way that its new meaning incorporates the sense of its correlative.

Webster's Collegiate Dictionary defines "selfish" (in part) as "regarding one's own comfort, advantage, etc. in disregard of, or at the expense of that of others." In this ordinary and proper sense of "selfish," Aunt Emma's action in giving her last cent to the beggar certainly was not selfish. Emma disregarded her own comfort (it is not "comfortable" to go a week without eating) and advantage (there is no "advantage" in malnutrition) for the sake of (not "at the expense of") another. Similarly, the martyr marching off to the stake is foregoing (not indulging) his "comfort" and indeed his very life for the sake of (not at the expense of) a cause. If Emma and the martyr then are "selfish," they must be so in a strange new sense of the word.

A careful examination of the egoist's arguments (see especially 4a above) reveals what new sense he gives to the word "selfish." He redefines the word so that it means (roughly) "motivated," or perhaps "intentional." "After all," says the egoist, "Aunt Emma had some purpose in giving the beggar all her money, and this purpose (desire, intention, motive, aim) was her purpose and no one else's. She was out to further some aim of her own, wasn't she, Therefore, she was pursuing her own ends (acting from her own motives); she was after something for herself in so acting, and that's what I mean by calling her action selfish. Moreover, all intentional action done 'on purpose,' deliberately from the agent's own selfish in the same sense." We can see now, from this reply, that since the egoist apparently means by "selfish" simply "motivated," when he says that all motivated action is selfish he is not asserting a synthetic empirical hypothesis about human motives; rather, his statement is a tautology roughly equivalent to "all motivated actions are motivated." And if that is the case, then what he says is true enough; but, like all tautologies, it is empty, uninteresting, and trivial.

Moreover, in redefining "selfish" in this way, the psychological egoist has committed the fallacy of the suppressed correlative. For what can we now contrast "selfish voluntary action" with? Not only are there no actual cases of unselfish voluntary actions on the new definition; there are not even any theoretically possible or conceivable cases of unselfish voluntary actions. And if we cannot even conceive of what an unselfish voluntary action would be like, how can we give any sense to the expression "selfish voluntary action"? The egoist, so to speak, has so blown up the sense of "selfish" that, like in-flated currency, it will no longer buy anything.

20. Psychological Egoism as a Linguistic Proposal. There is still one way out for the egoist. He might admit that his theory is not really a psychological hypothesis about human nature designed to account for the facts and enable us to predict or anticipate future events. He may

even willingly concede that his theory is really a disguised redefinition of a word. Still, he might argue, he has made no claim to be giving an accurate description of actual linguistic usage. Rather, he is making a proposal to revise our usage in the interest of economy and convenience, just as the biologists once proposed that we change the ordinary meaning of "insect" in such a way that spiders are no longer called insects, and the ordinary meaning of "fish" so that whales and seals are no longer called fish.

What are we to say to this suggestion? First of all, stipulative definitions (proposals to revise usage) are never true or false. They are simply useful or not useful. Would it be useful to redefine "selfish" in the way the egoist recommends? It is difficult to see what would be gained thereby. The egoist has noticed some respects in which actions normally called "selfish" and actions normally called "unselfish" are alike, namely they are both motivated and they both can give in prospect or in retrospect to the agent. Because of these likenesses, the egoist feels justified in attaching the label "selfish" to all actions. Thus one word, "selfish" - must for him do the work of two words ("selfish" and "unselfish" in their old meanings); and, as a result, a very real distinction, that between actions for the sake of others and actions at the expense of others, can no longer be expressed in the language. Because the egoist has noticed some respects in which two types of actions are alike, he wishes to make it impossible to describe the respects in which they differ. It is difficult to see any utility in this state of affairs.

But suppose we adopt the egoist's "proposal" nevertheless. Now we would have to say that all actions are selfish; but, in addition, we would want to say that there are two different kinds of selfish actions, those which regard the interests of others and those which disregard the interests of others, and, furthermore, that only the latter are blameworthy. After a time our ear

would adjust to the new uses of the word "selfish," and we would find nothing at all strange in such statements as "Some selfish actions are morally praiseworthy." After a while, we might even invent two new words, perhaps "selfitic" and "unselfitic," to distinguish the two important classes of "selfish" actions. Then we would be right back where we started, with new linguistic tools ("selfish" for "motivated," "selfitic" for "selfish," and "unselfitic" for "unselfish") to do the same old necessary jobs. That is, until some new egoistic philosopher arose to announce with an air of discovery that "All selfish behavior is really are no truly unselfitic selfish actions." Then, God help us!

NOTES

1. See his Introduction to the Principles of Morals and Legislation (1789), Chap. I, first paragraph: "Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do... . They govern us in all we do, in all we say, in all we think: every effort we can make to throw off our subjection will serve but to demonstrate and confirm it."

2. C. D. Broad, *Ethics and the History of Philosophy* (New York: The Humanities Press, 1952), Essay 10 "Egoism as a Theory of Human Motives," p. 218. This essay is highly recommended.

3. Austin Duncan-Jones, *Butler's Moral Philosophy* (London; Penguin Books, 1952), p. 96. Duncan-Jones goes on to reject this argument. See p. 512f.

4. Lucius Garvin, *A Modern Introduction to Ethics* (Boston: Houghton Mifflin, 1953), p. 37. Quoted here by permission of the author and publisher. 5. Op. cit., Chap. III.

6. Sec Part D, 15 and 16, below.

7. Op. cit., p. 39.

8. *The Principles of Psychology* (New York: Henry Holt, 1890), Vol. II, p. 558.

9. Op. cit., p. 39.

10. Quoted from the Springfield (Illinois) Monitor, by F. C. Sharp in his *Ethics* (New York: AppletonCentury, 1928), p. 75.

11. See his *Fifteen Sermons on Human Nature Preached at the Rolls Chapel* (1726), especially the first and eleventh.

12. Whether or not there are some a priori statements that are not merely analytic, and hence not vacuous, is still a highly controversial question among philosophers.

13. Some philosophers (those called "rationalists") believe that there are some synthetic statements whose truth can be known a priori (see footnote 12). If they are right, then the statement above is not entirely accurate.

14. Again, subject to the qualification in footnotes 12 and 13.

15. The three examples given above all have the generic character there indicated, but they also differ from one another in various other ways, some of which are quite important. For our present purposes however, we can ignore the ways in which they differ from one another and concentrate on their common character as generalizations of experience ("inductive generalizations"). As such they are sharply contrasted with such a generalization as "All puppies are young dogs," which is analytic.

16. The phrase was coined by J. Lowenberg. See his article "What Is Empirical?" in the *Journal of Philosophy*, May 1940.

PROPOSED STANDARDS OF RIGHT CONDUCT

Ethical Subjectivism

RUSS SHAFER-LANDAU

Imagine two people debating the morality of giving to famine relief. Smith thinks that we are bound to give a great deal more than people typically do. Jones denies this. Suppose that these two, after talking a good while longer, have found themselves in agreement about all of the relevant facts, and have also sharpened their own positions so that the views they emerge with are each internally consistent. But suppose that the fundamental disagreement between them remains. Can this disagreement be rationally resolved?

Not likely, according to ethical subjectivists. Subjectivism claims that there is no ideal or uniquely correct resolution to ethical disagreements, because there are no ethical standards that are objectively correct, no standards to which all rational or fully informed people must agree. There is no overarching, universal yardstick that can be applied to determine the truth of one's ultimate moral principles. Once we have identified our deepest moral commitments, we can go no further. It makes no sense, according to subjectivism, to suppose that such commitments could be false or irrational.

To better understand ethical subjectivism, we need to appreciate the key notions of subjectivity and objectivity. A proposition or judgment is objectively true just in case it is true independently of anyone's thinking it is. So, for instance, the claim that the earth orbits around the sun is an objective truth, because the claim is true regardless of whether anyone believes it. A judgment is subjectively true just in case its truth depends on whether the speaker endorses it. To insist that chocolate is tastier than vanilla, or that beer is better than wine, is to make a subjective claim, because in this case truth is in the eye of the beholder.

TWO KINDS OF SUBJECTIVISM

Philosophers distinguish between two kinds of ethical theory. The first sort-normative theory specifies conditions under which an action is morally right or wrong. John Stuart Mill, for instance, held that an act is right insofar as it tends to produce happiness. Immanuel Kant thought that one acts rightly only if one is willing to see everyone act in accordance with one's own principles. Thomas Hobbes claimed that an act is right if it is permitted by rules that would be agreed to by self-interested parties seeking to band together to escape from anarchy.

Viewed as a normative theory, ethical subjectivism claims that an act is morally right if, and only if, the person judging the action approves of it. Similarly, personal disapproval is both necessary and sufficient for an action to qualify as wrong.

Normative subjectivism allows that moral judgments can be true or false. There is truth in ethics, but no objective truth. A moral judgment is true, according to normative subjectivism, just in case it accurately reports the sentiments of the speaker. Thus sincerity is the mark of ethical truth. If normative subjectivism is true, then one's sincere moral judgments cannot be mistaken.

The debate among Mill, Kant, Hobbes, and normative subjectivists is an intramural one. Each theory asserts its superiority as an answer to the question: Under what conditions are actions morally right? This is a very important debate within ethics. But we can step back from this debate and ask instead about the status of these competing theories. Specifically, we can ask of all of these theories how they might be justified, whether they are or can be true, and how, if at all, we might know that one or another is true. These are meta-ethical questions. Here we are not asking what makes actions right. Instead, we are focusing on whether normative theories can

be justified in the first place.

Meta-ethical subjectivism is the particular claim that normative ethical theories, and moral judgments quite generally, cannot be true. Contrast this with normative subjectivism, which claims that moral judgments can be true, provided they accurately report the speaker's feelings. Because of their different views about the possibility of ethical truth, meta-ethical subjectivism implies the falsity of normative subjectivism, and vice versa.

Let us consider the motivations and the plausibility of normative subjectivism first.

MOTIVATIONS FOR NORMATIVE SUBJECTIVISM

A. The Argument from Democracy

One of normative subjectivism's appeals is that it is so democratic. Subjectivism is a levelling doctrine everyone issues true moral judgments, so long as they sincerely give voice to their feelings. Everyone's views are on a par with everyone else's. This democratic element is a genuine feature of subjectivism. But many take this democratic element a step further, expressing their allegiance to normative subjectivism by means of the following argument:

1. If everyone has an equal right to have and voice moral opinions, then everyone's moral opinions are equally plausible.

2. Everyone does have an equal right to have and voice moral opinions.

3. Therefore everyone's moral opinions are equally plausible.

This argument is valid-its premises entail its conclusion. If one were to accept premises (1) and (2), then logic requires one to accept the conclusion (3) as well. But should we accept these premises? The second premise seems generally plausible. But the first premise is false. Having a right to an opinion does not entail the plausibility of that opinion. Though everyone has an equal right to express views about

mathematics or quantum physics, no one supposes that everyone's opinions here are equally plausible. I have lots of opinions about botany, about the content of the tax code, about the location of various buildings and landmarks. Further, I have a right to each of these opinions. But many of them (I'm not sure which) are mistaken. I misidentify plants, misconstrue tax law, and my sense of direction is awful. These humdrum examples show that the plausibility of an opinion really has nothing to do with one's right to hold it: Having a right to an opinion is one thing, the truth of that opinion quite another. This directly undermines the first premise of the argument. Because we must reject one of its crucial premises, the argument from democracy is unsound. It does not supply a good basis for endorsing normative subjectivism.

B. The Argument from Disagreement

One thing that impresses many people about work in the sciences is the degree of consensus about which propositions are true, and about which methods are appropriate for discovering new truths. Things in ethics seem to be much different; there seems to be a great deal of disagreement about fundamental issues, and a lack of consensus about appropriate methods for resolving moral questions. The diversity of ethical opinion has struck many as an important indicator of morality's fundamentally subjective character.

Here is a representative sketch of an argument for subjectivism that takes the breadth of ethical disagreement as its focus:

1. If there is persistent disagreement among informed, good-willed, open-minded people about some subject matter, then that subject matter does not admit of objective truth.

2. There is persistent disagreement about ethical issues among informed, good-willed, open-minded people.

3. Therefore there are no objective ethical truths.

We can know that an argument's conclusion is true if we know that the argument is logically valid and that all of its premises are true. This argument is valid. The second premise seems to be true, though the breadth of moral agreement is often underappreciated. The divisive moral issues tend to get the most press, but this publicity can mask the significant degree of moral consensus that must form the core of any society. Further, though there clearly is disagreement about ethical issues, it is sensible to suppose that much of this is owing to mistaken beliefs; more information would lead to greater ethical agreement. Public debates about welfare reform in the United States, or about the morality of capital punishment, are chock full of misinformation. Getting the facts straight would get us a good distance toward resolving issues on these (and other) topics.

Still, we may suppose that even after gathering the facts, people of good will may disagree in their ethical views. So let us grant premise (2). Premise (1), however, is not plausible. There is persistent disagreement among informed, good-willed, open-minded physicists and mathematicians. We, and they, assume that their efforts are nevertheless aimed at discovering objective truths. We do not believe that taste is the arbiter of truth in math or physics. Indeed, we can make this quite general point about investigations of all sorts. When historians debate the causes of the Civil War, they are not merely entering their personal views, with nothing other than parochial preference to back them up. Historians are trying to discover what really caused the Civil War. They continue to disagree about this. But this is not evidence that their discipline is subjective, that the truths they arrive at are mere expressions of taste. It isn't the case that historical (or physical or mathematical) judgments are true just because someone believes in them. What this shows is that a discipline may deal in objective truths even if its open-minded, informed practitioners deeply disagree with one another. Because that is so, the argument from disagreement fails to provide adequate support for normative subjectivism.

C. The Argument from Tolerance

Many people find subjectivism attractive because of the support it seems to provide for tolerance. We nowadays reject the once-prevalent feelings of superiority that were used to justify the oppression of Asians, Africans, and indigenous Americans

during the past three centuries. We would encourage a respectful, tolerant attitude toward different cultures, rather than a dismissive outlook that brands other cultures as "primitive." This dismissive attitude always begins with an (implicit) endorsement of ethical objectivism—there is an objectively correct way to do things. And we all know how things go from here: "We have it right, they don't, thus we have to show them the true path. If this means exploiting them (for their own good), and possibly destroying their way of life, no great loss, since we will supply them with a far better one."

If you are like most people, you'll have bristled at the arrogance expressed in these last lines. This may lead you to endorse the following argument from tolerance:

1. If normative subjectivism is true, then no one's deepest opinions are more plausible than anyone else's.

2. If no one's deepest opinions are more plausible than anyone else's, then we have to respect and tolerate the opinions of all others.

3. Thus if normative subjectivism is true, then we have to respect and tolerate the opinions of all others.

There are two important points to note about this argument. The first is that even if it is if

it is logically valid (it is), and all of its premises (and thus its conclusion) are does not entail that ethical objectivists need to embrace an arrogant or disrespectful attitude toward different cultures. Objectivists believe that there are ethical truths that exist independently of whether anyone thinks so. An objectivist need not believe that he himself is in possession of such truth. Indeed, objectivists who are appropriately humble will recognize their own fallibility and the limits to their understanding, in much the same way as physicists or chemists might appreciate the depth of their own ignorance against the backdrop of objective truth. Arrogance and intolerance are poor character traits. They are not mandated by the intellectual position of ethical objectivism.

Let us return to the argument. Its first premise is true. But the second premise is suspect if normative subjectivism is true. Suppose that it is. This means that an action is morally right just in case someone approves of it. If one approves of tolerant behavior, then such behavior is morally correct. The problem, however, is that if one approves of intolerance, then intolerant behavior is morally appropriate. Subjectivism morally sanctions the intolerance of prejudiced and bigoted individuals, so long as such intolerance is sincerely felt. Regrettably, it often is. Those who think that even (and especially) racists and bigots are morally required to display respect for others will find no ground for their view in ethical subjectivism. To think that even a deeply prejudiced person should be tolerant is to embrace the universal or objective value of toleration. A concern for tolerance thus sits very uncomfortably with normative subjectivism.

D. The Argument from Atheism

A common thought that moves many to normative subjectivism is that objectivity in ethics can be purchased only through divine commands. If ethics is objective, then it must be God who validates the moral rules. The problem, according to subjectivists, is that God does not exist.

Here is the argument in somewhat tighter form:

1. If ethics is objective, then God must exist.
2. God does not exist.
3. Therefore ethics is not objective.

We could undermine the argument from atheism if we could show that God exists. We can't, at least not here (and perhaps not anywhere; this is one philosophical issue that may never be settled). But even if we could resolve this matter, and do so in favor of the atheist, this would not be enough to prove subjectivism. We can see that from the argument itself. The argument requires a further claim (premise 1), namely, that ethics is objective only if God exists.

There is an intuitive, widely shared view that underlies the first premise. The thought is that laws require lawgivers. There are laws against assault, forgery, and perjury only because lawmakers have enacted them. No legislators, no laws. By analogy, if there are moral laws, these require some lawmaker to validate them. If moral laws are objective, this lawmaker cannot

be any one of us. (Remember: Objective moral rules are those whose truth does not depend on human endorsement.) If not one of us, then who? Enter God.

There are two reasons to doubt premise (1). This premise seems to derive its strongest support from the common thought mentioned earlier (viz., that rules require rulegivers). But this principle is suspect. Many think that the rules of logic and the axioms of mathematics are true quite independently of whether anyone has ordained them. If that is so (an issue too complex to tackle here), then moral rules too might be true or justified even in the absence of a moral lawgiver.

Further, there is reason to think that even if God exists, God cannot be the ultimate source

of ethical principles, and so cannot be the missing link that supplies objectivity in ethics.

Suppose God exists. Suppose God issues commands to us. And further suppose that our moral law comprises these commands. Ethics is objective because the law comes from God, not from us. If it didn't come from God, it couldn't be objective.

This familiar line of thought, often used to support premise (1), is beset by a troubling dilemma: God either does or does not have reasons to support his (or her or its) commands. If God lacks justifying reasons, then God's commands are arbitrary, and so supply no authoritative basis for ethics. Alternatively, if God's commands are backed up by reasons, then divine commands are no longer arbitrary. They may be authoritative. We can envision a God who is omniscient, and so knows all facts, including moral facts. This God may also be omnibenevolent, and in his goodness may want to impart the moral facts (or rules) to us, in the form of divine commands. This traditional picture preserves the goodness and omniscience of God, precisely by envisioning divine commands as being well-supported by reasons.

The problem, however, is that these reasons, whatever they are, are what really justify the divine commands. If God commands us not to kill, extort, or perjure, he does so because such actions are wrong; they are not wrong because God forbids them. But this means that even theists, if they are to retain a picture of an all-good and all-knowing God, must acknowledge a source of ethical truth that exists independently of God's commands. This means that the objectivity of ethics does not hinge on God's commands. And that directly challenges premise (1). (For a view that takes the opposite approach to God's role in ethics, see Philip Quinn's article, "God and Morality," which appears later in this section.)

A final complication emerges when we consider the argument's claim that ethics is not objective. Even if premises (1) and (2) are true, the conclusion does not show that normative subjectivism is true. Put simply, (3) may be true even if normative subjectivism is false. There are at least two theories, in addition to normative subjectivism, that are compatible with the claim that ethics is not objective. One of these theories is meta-ethical subjectivism. The other is ethical relativism, the view that an action is morally right if, and only if, it is permitted by the ultimate mores of the society in which it is performed. Ethical relativism allows for moral truth-moral judgments are true just in case they accurately report a certain kind of social consensus. Because moral truth is a function of what people believe it to be, ethical relativism is a non-objective theory. Thus relativists, as well as normative and meta-ethical subjectivists, will embrace conclusion (3). This shows that the argument from atheism, if it is to support normative subjectivism, must be supplemented by additional arguments that rule out its two antiobjectivist competitors.

For our purposes, then, we must suspend judgment on the argument from atheism. The argument is sound only if both of its premises are true. They may be. But we could know this only after a very great deal of further philosophical investigation. And we would have an argument for normative subjectivism only if we also had in hand a battery of arguments that undermined both metaethical subjectivism and ethical relativism. All the more reason to wait and see before pronouncing a judgment on the argument from atheism.

Implications of Normative Subjectivism

As we have seen, many of the arguments that are advanced for ethical subjectivism are not very compelling. This is not a fatal flaw. Most philosophical positions are supported by a large battery of arguments, many of which, after serious attention, turn out to be unsound. Thus ethical subjectivism may be true even if the preceding arguments turn out to be less than convincing. But to gain plausibility, its supporters need to discharge two debts. First, they must

advance a positive argument that survives scrutiny. Second, they must show that the essential implications of subjectivism are implications we can live with. Let us see whether this is so.

First, as we have seen, subjectivism is a doctrine of moral equivalence-everyone's ultimate moral views are as plausible as everyone else's. This is a handy weapon when dealing with arrogant or haughty individuals. But moral equivalence is a double-edged sword. If all moral views are on a par with one another, then we lose our basis for issuing substantive moral criticism of unsavory characters such as Nazis and terrorists. If subjectivism is true, then those who approve of antisemitism and terrorism are correct in calling such behavior morally right. The moral views of a Hitler or an IRA gunman are true, so long as these views are sincerely held.

Of course, subjectivism does not render us mute at this stage-we can criticize the views of Nazis and terrorists, but only from our own perspective. Importantly, our perspective is not superior to theirs. Moral equivalence entails that conflicting moral views are just different; neither one is better or worse than another. This may appeal when comparing the prayer or dietary rituals of Belgians and Polynesians. But it is likely to leave us cold in the face of serious evil.

Normative subjectivism also comes very close to rendering each person morally infallible. An infallible person is one who cannot make mistakes. Thus such a person has no false beliefs and all true ones. If subjectivism is true, then it is possible that all, or almost all, of our moral beliefs are correct. We can be morally mistaken in only one of two ways. We might base our moral views on false beliefs (e.g., a racist whose antipathy to blacks is based on a false belief about their intelligence). Or we might possess moral beliefs that conflict with other, deeper moral beliefs we already hold. We might, for instance, approve of the death penalty for a specially awful murderer, even though in a cooler moment we reject the principles that could justify the execution.

According to subjectivism, moral views that are free of either sort of error cannot be mistaken. Apart from exceptions of these two kinds, subjectivism entails that our moral feelings are selfcertifying. Moral outlooks that seem to us vicious, ruthless, callous, selfish, or even maniacal cannot be wrong, so long as the views imply no factual errors and are consistent with other things a person holds. Literature and history offer a good supply of well-informed, consistent fanatics. Subjectivism implies that their views are true.

If we are ordinarily morally infallible, and if we disagree with others in our ethical views, then it follows that subjectivism generates contradictions. A contradiction occurs when a proposition is alleged to be both true and false. Theories that generate contradictions cannot be true. We would rightly dismiss a mathematical theory that entailed that two and two did, and at the same time did not, equal four. Suppose ethical subjectivism is correct. If Smith thinks that giving famine aid is mandatory, and Jones disagrees, then giving to famine relief is and is not morally required. It is both true and false that giving to famine relief is obligatory. That is a contradiction.

We can resolve this worrying implication in a fairly straightforward way. Rather than saying that Smith's approval of an action makes it morally right, period, we say that her approval makes it right for her. Thus, in the previous example, giving famine aid is not right and wrong in the same respect-it is right for Smith, and wrong for Jones. This is the strategy of relativizing moral judgments to their speakers.

This move really can solve the problem of contradiction. But the strategy has its costs. It renders subjectivism incapable of explaining the point or existence of moral disagreement. Think

again of the debate about famine relief. If all Smith is saying is that she herself approves of it, and if all Jones is saying is that he doesn't, then Smith and Jones don't really disagree with one another. Further, we lose incentive to continue moral conversation, because moral truth just consists in reports of personal feelings.

It may appear that Smith and Jones, in their debate about famine relief, are trying to get at the truth, trying to discover what is really right. But if we relativize judgments to their speakers, this appearance is misleading. There can be no genuine disagreement about where truth lies, since it lies in the eyes of the beholder. If subjectivism is right, everyone's views are true, so long as they are sincerely expressed. Thus ethical disagreement could focus only on whether the interlocutors actually believe what they say they do. Disagreement cannot focus on whether famine relief is really right-right in a non-relative, objective sense-because (according to subjectivism) famine relief cannot be really right (or wrong). Subjectivism leaves us with an entirely unrecognizable picture of moral disagreement.

A final concern. If subjectivism is true, then our moral views are arbitrary. There is no better reason to adopt one ethical view over another. Subjectivism claims that moral views are true because one believes them; one does not believe them because they are true. Moral views are justified to the extent that they are believed, so any basis whatever (other than false belief) will confer plausibility. This allows us to see two ways in which subjectivism entails the arbitrariness of ethical views. First, one's moral outlook may be justified even if one has no reason at all that supports one believes it is sufficient to make it true. In a second kind of case, one does possess reasons that support one's moral views. But the reasons that support a moral belief may fail entirely to move other informed, rational, good-willed people. In this sense, one's views are arbitrary, because they are supported by reasons that could, with complete propriety, be rejected by any and all other rational people.

MOTIVATIONS FOR META-ETHICAL SUBJECTIVISM

Most people will find at least some of these implications troubling. For those who do, yet still balk, at the idea of objectivity in ethics, meta-ethical subjectivism is a natural path to pursue. This brand of subjectivism denies that moral judgments can be true or false. They are neither true nor false because they are not attempting to describe anything. There are no facts that they might accurately capture not even facts about our own feelings, or society's agreements. According to meta-ethical subjectivism, the purpose of moral judgment is not to report personal or social attitudes, but rather to express one's feelings or voice one's commitments.

On this view, moral judgments are closely analogous to commands and emotional responses. Though moral judgments look like factual judgments-"infanticide is wrong" has the same grammatical structure as straightforward descriptive judgments ("space is curved", "grass is green")-this appearance is misleading. To say that infanticide is wrong, for instance, is either to give vent to a visceral dislike of infanticide, or to issue a command that prohibits infanticide. On the first line, the moral judgment is equivalent to "Infanticide? Boo! Yuck!" On the second view, the moral judgment reduces to something like "Don't commit infanticide!" On either view, moral judgments cannot be true or false, since they don't purport to describe anything. Emotive ventings ("Spinach? Blech!") aren't true or false. Commands ("Rise and shine!") aren't true or false. According to meta-ethical subjectivists, because moral judgments are effectively utterances of either sort, they aren't true or false, either. Unlike normative subjectivism, which sees moral judgments as reports of personal feelings, and so usually true, metaethical subjectivism denies that such judgments are ever true (or false).

The distinction between normative and metaethical subjectivism may seem a minor one,

a picayune footnote introduced by philosophers to impress one another and oppress their students. But the distinction is actually quite important. As we'll see, we can solve many of the problems that beset normative subjectivism if we deny that moral judgments can be true or false. Whether all of the problems disappear remains to be seen.

Let us begin our assessment of meta-ethical subjectivism by considering some of the most important arguments that have been advanced on its behalf.

A. The Argument from Moral Motivation

The great Scottish philosopher David Hume was no fan of ethical objectivism. One of the many

arguments he offered against it began with what he took to be a striking difference between moral judgments and factual ones. Hume thought that one mark of moral judgment was its capacity to motivate people. A person who sincerely thinks that something is good will be really moved to pursue it; someone who thinks an action genuinely obligatory is thereby motivated to perform it. Nothing like this could be claimed of factual judgments.

Here is the argument put more succinctly:

1. Every moral judgment motivates all by itself.
2. Factual judgments cannot motivate all by themselves.
3. Therefore moral judgments are not factual judgments.

Premise (1) tells us that moral judgments are intrinsically motivational-to judge an action right is to be motivated to perform it. To avoid misunderstanding, note that one can be motivated to perform an action and still fail to do it. Motivations can be overridden; people can be weakwilled, for instance. Still, Hume claims that we cannot genuinely make a moral judgment unless we are motivated to some extent to comply with it.

This is what distinguishes moral judgments from factual judgments. We may believe all sorts of mathematical, chemical, or geographical propositions without being moved in the slightest. And when we are moved by factual judgments, it is only because of some accompanying desire that we happen to have. The factual judgments do not motivate all by themselves. Even a very likely candidate "stepping out in front of that bus will surely kill you"-does not motivate all by itself. We cannot know how or whether a factual judgment will move us unless we also know which desires are associated with the judgment; whether, in this case, we want to commit suicide or to remain alive. Moral judgments intrinsically motivate. Factual judgments do not. Therefore moral judgments are not factual ones.

This is a classic of ethical argumentation. The second premise is widely, if not universally, accepted. The first premise, though, has attracted significant opposition, primarily from those who think that moral claims are a species of factual claims. On this line, moral judgments, like factual judgments, need to be supplemented by a desire before people will be motivated to act on them. Moral judgments do not motivate all by themselves. In order to generate motivation, some associated moral desire (e.g., to be beneficent or just) must be present. Those who reject premise (1) believe that it is possible for some people, known as amorlists, to lack moral desires. Amorlists are those who sincerely make moral judgments but entirely fail to be moved by them. These might be people who are depressed, rebellious, alienated, or just plain evil. If amorlists can exist, then premise (1) of the argument from moral motivation is false.

It might seem that this is an easy question to resolve. We can see that amorlists may exist just by imagining their possibility. We can readily imagine someone saying that some particular action is right, all the while remaining perfectly indifferent. The difficulty here is that our imagination is not a reliable indicator of genuine possibilities. People (claim to) imagine the

possibility of a square circle, or a number that is both odd and even, but these things cannot exist. Likewise, even if we can imagine the amoralist, this isn't sufficient to show that such persons can exist. Premise (1) may be true after all.

Meta-ethical subjectivists will analyze moral judgments as expressions of emotion; since emotions are intrinsically motivating, moral judgments are intrinsically motivating, too. This is why subjectivists endorse premise (1) of the argument from moral motivation. If amoralists really can exist, then moral judgments are not intrinsically motivating, and hence not necessarily expressions of emotion. If they are not intrinsically motivating, then moral judgments might be factual judgments after all. The plausibility of meta-ethical subjectivism thus depends on whether the amoralist is a genuine possibility. That, unfortunately, is an issue that can't be briefly resolved. Hume's classic argument may be sound. But one would need to undertake a great deal of further investigation before having any warranted confidence one way or the other.

B. The Argument from Economy

Most philosophers believe that when one is comparing the plausibility of competing theories, we

should, if all other things are equal, give the nod to the simpler, more economical theory. Theory A is more economical than theory B if A can explain all that B can, but with fewer assumptions. Copernicus' theory of elliptical orbit was simpler than Ptolemy's, and for this reason ultimately came to be viewed as more plausible. The reason scientists don't refer to hexes, spells, ghosts, or demons in their theories is because they can explain everything they need to explain without invoking such things. Supernatural phenomena are superfluous; they're added baggage, unnecessary extras that simpler theories can do without.

In a similar vein, meta-ethical subjectivists claim superiority for their view because their assumptions about what there is in the world are sparser than objectivism's. Subjectivists have an essentially scientific view of what the world consists of. The world contains physical things, and physical forces that work on them. Morality is a complex human creation; when we ask what is in the world, really, no mention of moral facts need be made. We can explain all of the goings-on of this world, including all human people act as they do, say the things they do, think as they do-without invoking anything like a "moral fact".

This method of doing away with moral facts bears a striking resemblance to accounts that seek to undermine traditional religion. The Judaeo-Christian god is thought by many to be superfluous-we can explain all of the goings-on of our world without supposing that there is something further, something more (God) who must be put in the picture. As science progresses, we discover that the natural events we once attributed to God (or to the gods) can be explained solely in terms of the natural workings of the natural world. In the same way, many philosophers and neuroscientists have expressed doubt about the existence of a soul, claiming that it is more economical simply to posit the existence of the brain and the nervous system to explain all of our behavior. Without the brain and nervous system, we can't explain any conscious behavior. With it, we can explain all we need to explain. The notion of a soul does no explanatory work (or so it is alleged). A simpler, better theory would thus do without it.

Subjectivists take this strategy and apply it to ethics. What would moral facts be needed to explain? Subjectivists usually take this to be a rhetorical question. We can explain everything in the world by referring to scientific facts, including facts about human psychology. But objectivists have supplied answers. They claim that we can explain lots of things that need explaining by citing moral facts. We explain why Hitler did what he did by citing his evil nature. We explain why people opposed apartheid by citing its injustice. We explain the success of a con

man by reference to his duplicitous character. These all seem to be moral facts. The question, of course, is whether we can explain the beliefs and actions mentioned in these examples without citing the moral facts themselves.

For instance, subjectivists will claim that we don't have to suppose that there really is some moral fact of injustice existing out there, somewhere, in order to explain why so many people protested against the apartheid regime. Instead, we simply need to mention the nonmoral facts about differential treatment that obtained in South Africa, and combine these facts with further nonmoral, psychological facts, facts about what people believed. Citizens believed that there was grave injustice, they felt disgusted by the regime, and these beliefs and feelings, combined with various social, cultural, and economic facts, generated the protests that contributed to undermining apartheid society. This explanation makes no mention of any moral moral judgments and feelings, plus the social scientific facts just alluded to.

This subjectivist strategy is precisely the same sort of strategy we use to debunk metaphysical commitments in other areas. We can cite facts about the Salem society of 300 years ago, combined with people's beliefs and feelings about witches, to explain why so many people were hanged. We don't need to suppose that there really were witches in order to explain everything that needs explaining. Likewise, it is claimed, we don't need to assume the existence of moral facts in order to explain everything in the world that requires explanation.

If we compare the world that scientists depict with that same world, plus a further realm of

moral facts, it is easy to see which view is simpler. But simplicity is not everything. The simpler theory must also be sufficiently explanatory. The question in ethics, as in theology and in the philosophy of mind, is whether we really can explain all that needs explaining with the sparer, more economical theories. As with matters of moral motivation, the issue of economy remains extremely controversial, with objectivists arguing that we do need moral facts to explain our practices, and subjectivists charging that moral facts are superfluous. Unsurprisingly, then, we must satisfy ourselves with only a sketch of the competing positions. Getting beyond the preliminaries requires a deeper dip into the philosophical waters than we can undertake here.

C. The Argument from Oddness

Meta-ethical subjectivists urge another reason for abandoning belief in objective moral facts. Suppose, with objectivism, that moral judgments are true, and true quite independently of what we happen to think of them. They are true, when they are, because they accurately report objective moral facts. But what could such things be? We readily grant that geologists and chemists, physicists and astronomers deal in objective truth, because we believe that their findings are constrained by the physical world whose features exist independently of whether anyone recognizes them. Botanical facts are facts about plants; geological facts are facts about rocks. In botany and geology, evidence is supplied by threedimensional, tangible, physical stuff. We can taste it, smell it, touch it, and see it. We can't taste wrongness or hear rightness. Moral facts, if they were to exist, would have to be quite odd sorts of things, certainly nothing at all like the kinds of phenomena studied by recognized factual disciplines.

Objectivists typically reply, with some force, that they need not be committed to any ghostly realm of moral facts. Everyone agrees that there are moral rules. Moral facts are simply applications of those rules. If a moral rule prohibits infanticide, and Smith commits infanticide, then it is a moral fact that what he did was wrong. Nothing mysterious so far. But subjectivists will claim that the relevant question has simply been pushed back a step. Now we must ask what justifies or validates the moral rule against adultery (or promise-breaking, lying, killing, etc.).

What is it that makes a moral rule (objectively) true?

As a first step in exploring possibilities, we should consider rules in nonmoral contexts and ask what makes them true. Rules of sports or etiquette are true, if they are, only because certain people believe they are. If no one endorsed the three strikes rule in baseball, or the ban on public nose-picking, then there simply would not be any such rules. Such rules are therefore subjective in the relevant sense.

On the other hand, most people believe that the laws of chemistry, geology, astronomy, and physics are true because of the way the world is. Our best thoughts in these disciplines track reality, as opposed to creating it. If moral rules are like scientific laws, however, then presumably they would have to be true in virtue of the operations of the physical world. This sounds very strange. The movement of protons makes certain physical laws true; the behavior of molecules validates certain chemical laws; the interactions of cells make true particular laws of biology. But which operations of which physical things make moral rules true? The moral prohibition on torture does not seem to be vindicated by citing the workings of the physical world.

There are two standard moves for ethical objectivists to make at this point. The first strategy—ethical naturalism—claims that, despite appearances, moral facts really are natural, scientific facts. Whether something is right or wrong can be verified in just the same way that scientific hypotheses can be. Prominent examples of naturalism include the claims that actions are morally right if and only if they maximize pleasure, that things are good just because they are desired, and that exchanges are just if and only if all parties to the transfer have agreed to abide by its terms.

I don't want to take a stand on the success of these views. What is important for our purposes is that if these claims (or others like them) are true, then all it takes is ordinary empirical investigation to determine whether actions are right, good, or just. There doesn't seem to be anything especially weird or mysterious about pleasure, desire, or agreements. If moral facts consist of just these sorts of humdrum things, then moral facts are not at all strange.

Subjectivists acknowledge this. But they remain skeptical. Naturalists need to supply plausible connections that link moral and naturalistic (i.e., nonmoral) features. But does rightness really consist in maximizing happiness? Is something good just because it is desired? Do all mutual agreements really yield justice? After thorough scrutiny, most philosophers have rejected these views. Now, objectivists needn't abandon; they may try to defend these theories in the face of criticisms, or they may seek better, improved naturalistic theories. There is no way to entirely discount the possibility that with greater application and ingenuity, objectivists may arrive at satisfactory naturalistic accounts of moral features. But the history of such efforts does not inspire confidence.

Try it yourself. An act is morally right if and only if it fills in the blank is called an analysis. Naturalists disagree among themselves about which analyses are best. Naturalists are unified, however, in believing that the blank can ultimately be filled in naturalistically, that is, without the use of any moral terms. A classic case is that of the standard utilitarian doctrine cited above, which claims that an action is morally right if and only if it maximizes pleasure. The main benefit of such a theory is that it makes determining the rightness of actions a straightforward affair. Of course it won't, as a practical matter, always be easy to determine whether pleasure is maximized. But in principle, at least, we can see a clear path to justifying our moral claims and providing guidance for action.

Ethical nonnaturalists believe that there are no true naturalistic analyses of moral terms. For nonnaturalists, moral judgments cannot be empirically verified, and so there is a sharp disanalogy between ethics and science. Some nonnaturalists claim that we cannot give any analysis at all of moral above blank simply can't be filled in. The notion of goodness, for instance, may simply be basic, a fundamental term used to define other terms but not itself capable of definition. Alternatively, some nonnaturalists believe that we can define moral terms, but only if we employ other moral terms to do so. So, for instance, we might define morally right action as that which is reasonable and proper.

The basic worry for nonnaturalism is that if we abandon empirical verification in ethics, it is not easy to see how we could verify or justify moral claims at all. If goodness is indefinable, or definable only by use of other moral terms which themselves are indefinable, how are we to know what is good and bad, right and wrong? If I am puzzled about whether an action is morally right, I'm likely to be equally puzzled about whether it is reasonable and proper. And things are still worse if we claim that goodness or rightness are basic and indefinable. For then we've no criteria at all to assist us in discovering truth in ethics.

In facing this problem, nonnaturalists have usually fallen back on the idea that we somehow intuit what is right and wrong. Intuition involves an immediate grasp or apprehension of the truth of some proposition. In ethics, the claim would be that we just intuit the truth that pain is bad, that keeping promises is good, that disloyalty is wrong, etc. The problem, of course, is that different people will have different intuitions about what is right and good and just, and intuitionism doesn't seem to have the resources for rationally adjudicating these disputes. If we deny that there are any definitions of moral terms, then there will be no criteria at all for arbitrating ethical disagreement. If we allow that there are such definitions, but insist that they contain moral terms, then the disagreements will simply be replicated in disputes about whether the defining moral terms (e.g., "reasonable," "proper") apply.

So the objectivist is faced with a dilemma: Either (i) opt for ethical naturalism, in which case we must come up with some plausible naturalistic analyses, or (ii) opt for ethical nonnaturalism, in which case we need to explain how it is possible to acquire knowledge of objective ethical facts. The subjectivist claims that options (i) and (ii) are so fraught with difficulties that it is best to abandon the commitment to ethical objectivity that motivated their development.

IMPLICATIONS OF META-ETHICAL SUBJECTIVISM

In addition to the powerful motivating arguments we have just discussed, meta-ethical subjectivism appeals because of its ability to handle several of the problems that beset normative subjectivism. Specifically, the worry about moral infallibility is bypassed, because this brand of subjectivism denies that anyone can ever possess moral truth, much less possess it in all instances. The problem of contradiction is likewise avoided. Contradictions arise when a proposition is alleged to be both true and false. If meta-ethical subjectivism is true, moral judgments are neither true nor false. Thus contradictions never arise. Finally, the existence and point of moral disagreement is preserved. According to meta-ethical subjectivism, ethical disagreements are disagreements in attitude. People on opposite sides of the abortion debate, for instance, have clashing attitudes toward abortion. There is real disagreementemotional disagreement. Because they each may feel very strongly about the issue, the point of such debate is to convince others to share their view, and so act in ways they favor. This seems to account for a great deal of what goes on in ethical disagreement.

Still, meta-ethical subjectivism cannot avoid the remaining two implications of its

normative cousin. Both brands of subjectivism generate a widespread moral equivalence, though for different reasons. Normative subjectivism makes each person an equally good arbiter of moral truth. Meta-ethical subjectivism denies that there is any moral truth. This denial implies that no one is superior to another at identifying what is right, or fine, or good. And no one is inferior, either. Moral judgments are expressions of taste, and a taste for cruelty or sadism is not worse (or better) than one for compassion and honesty. *Degustibus non est disputandum*.

Meta-ethical subjectivism also suffers from the problem of arbitrariness. If our ethical attachments are ultimately entirely up to us, with no supporting reasons needed, and no rationally compelling ones available, then our moral views are arbitrary. We have no better reason to support the ideology of Gandhi than of Pol Pot. Of course, each person actually will take a side. But our preferences in this regard are not rationally or ethically mandated. There is nothing necessarily irrational, wrong, or inappropriate about those whose fundamental aims differ from ours, even if those aims require for their satisfaction a policy of intimidation and torture.

Meta-ethical subjectivism also has to explain why all of us do employ non-subjectivist language in expressing our ethical outlooks. We frequently take our moral views to be true, and say as much in discussions with others. Our ethical conversations seem to be governed by a background assumption that, at least sometimes, those who disagree with us are in error and have false beliefs. Those with specially bad or confused impulses often come in for criticism as irrational. At the extreme, we may say of some such people that they or their views are illogical. Being illogical seems to involve contradiction, which (as we've seen) requires the notions of truth and falsity. Because meta-ethical subjectivism abandons these notions, it has difficulty explaining what illogical ethical views could amount to. The flip side is that these subjectivists also have difficulty explaining what logical ethical views amount to. A logical position is one in which one's views, if true, logically entail a true conclusion. But if we abandon the notion of truth in ethics, we seem to take the notion of logic with it.

Finally, if meta-ethical subjectivism is true, we must abandon our aspirations for moral knowledge. Knowledge presupposes truth. Though we often make claims to moral knowledge, such as knowing that genocide or racism is wrong, such claims must be merely metaphorical or false. There is no moral wisdom, at least none that comes from having the sort of ethical sensibility that issues in true moral judgments. Subjectivists usually counter that ethical knowledge is a matter of knowing how to live, rather than knowing that something or other is morally right. But what would it be to know how to live, if any consistent way of life was just as good as another? If we could not know that certain things were valuable, good, or virtuous, how could we be successful at knowing how to live? This is a challenge that subjectivists have yet to fully meet.

Conclusion

In many ways, the paces we've been put through here are entirely typical of philosophical discussion. Perhaps most typical is the state of play at the end of the day. Rarely do philosophers have knockdown arguments that can eliminate a philosophical position from contention. Philosophical evaluation is ordinarily a matter of weighing the pros and cons of competing theories, and tentatively opting for one view over another. Justifying a philosophical view requires advancing positive arguments on its behalf, and deflecting criticisms that detractors have identified. One needn't worry about getting bored. There will always be detractors. Criticisms are never in short supply.

Thus when we come to assess the merits of ethical subjectivism, in either of its major forms, we are engaged in a process of judgment. We examine the arguments in support of the

theory, develop them as best we can, and then scrutinize the implications of adoption. Whether we can live with the implications depends on one's assessment of the theory's attractions, and those of its competitors. There is no neat, simple method for discharging this task. Whether we can live with moral equivalence, arbitrariness, and the impossibility of moral knowledge depends on whether we can do better elsewhere. And that depends on how well ethical objectivists can respond to the motivating arguments of previous sections. Subjectivism's prospects may be bright (or dim). But we can measure its incandescence only after a very great deal of further philosophical labor.'

NOTE

1. I undertake some of this labor in *Whatever Happened to Good and Evil?* (Oxford University Press 2003), an introductory book devoted to assessing the plausibility of ethical subjectivism and objectivism.

Leviathan

THOMAS HOBBES

Thomas Hobbes (1588-1679) was a brilliant English philosopher. His work, *Leviathan* (excerpted here), is a classic of the social contract tradition in ethics and political philosophy.

From *Leviathan*, first published in 1651.

OF THE NATURAL CONDITION OF MANKIND AS CONCERNING THEIR FELICITY AND MISERY

Nature has made men so equal in the faculties of the body and mind as that, though there be found one man sometimes manifestly stronger in body or of quicker mind than another, yet, when all is reckoned together, the difference between man and man is not so considerable as that one man can thereupon claim to himself any benefit to which another may not pretend as well as he. For as to the strength of body, the weakest has strength enough to kill the strongest, either by secret machination or by confederacy with others that are in the same danger with himself.

And as to the faculties of the mind, setting aside the arts grounded upon words, and especially that skill of proceeding upon general and infallible rules called science—which very few have and but in few things, as being not a native faculty born with us, nor attained, as prudence, while we look after somewhat else—I find yet a greater equality among men than that of strength. For prudence is but experience, which equal time equally bestows on all men in those things they equally apply themselves unto. That which may perhaps make such equality incredible is but a vain conceit of one's own wisdom, which almost all men think they have in a greater degree than the vulgar—that is, than all men but themselves and a few others whom, by fame or for concurring with themselves, they approve. For such is the nature of men that howsoever they may acknowledge many others to be more witty or more eloquent or more learned, yet they will hardly believe there be many so wise as themselves; for they see their own wit at hand and other men's at a distance. But this proves rather that men are in that point equal than unequal. For there is not ordinarily a greater sign of the equal distribution of anything than that every man is contented with his share.

From this equality of ability arises equality of hope in the attaining of our ends. And therefore if any two men desire the same thing, which nevertheless they cannot both enjoy, they

become enemies; and in the way to their end, which is principally their own conservation, and sometimes their delectation only, endeavor to destroy or subdue one another. And from hence it comes to pass that where an invader has no more to fear than another man's single power, if one plant, sow, build, or possess a convenient seat, others may probably be expected to come prepared with forces united to dispossess and deprive him, not only of the fruit of his labor, but also of his life or liberty. And the invader again is in the like danger of another.

And from this diffidence of one another there is no way for any man to secure himself so reasonable as anticipation—that is, by force or wiles to master the persons of all men he can, so long till he see no other power great enough to endanger him; and this is no more than his own conservation requires, and is generally allowed. Also, because there be some that take pleasure in contemplating their own power in the acts of conquest, which they pursue farther than their security requires, if others that otherwise would be glad to be at ease within modest bounds should not by invasion increase their power, they would not be able, long time, by standing only on their defense, to subsist. And by consequence, such augmentation of dominion over men being necessary to a man's conservation, it ought to be allowed him.

Again, men have no pleasure, but on the contrary a great deal of grief, in keeping company where there is no power able to overawe them all. For every man looks that his companion

should value him at the same rate he sets upon himself; and upon all signs of contempt or undervaluing naturally endeavors, as far as he dares (which among them that have no common power to keep them in quiet is far enough to make them destroy each other), to extort a greater value from his contemners by damage and from others by the example.

So that in the nature of man we find three principal causes of quarrel: first, competition; secondly, diffidence; thirdly, glory.

The first makes men invade for gain, the second for safety, and the third for reputation. The first use violence to make themselves masters of other men's persons, wives, children, and cattle; the second, to defend them; the third, for trifles, as a word, a smile, a different opinion, and any other sign of undervalue, either direct in their persons or by reflection in their kindred, their friends, their nation, their profession, or their name.

Hereby it is manifest that, during the time men live without a common power to keep them all in awe, they are in that condition which is called war, and such a war as is of every man against every man. For WAR consists not in battle only, or the act of fighting, but in a tract of time wherein the will to contend by battle is sufficiently known; and therefore the notion of time is to be considered in the nature of war as it is in the nature of weather. For as the nature of foul weather lies not in a shower or two of rain but in an inclination thereto of many days together, so the nature of war consists not in actual fighting but in the known disposition thereto during all the time there is no assurance to the contrary. All other time is PEACE.

Whatsoever, therefore, is consequent to a time of war where every man is enemy to every man, the same is consequent to the time wherein men live without other security than what their own strength and their own invention shall furnish them withal. In such condition there is no place for industry, because the fruit thereof is uncertain: and consequently no culture of the earth; no navigation nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving and removing such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and, which is worst of all, continual fear and danger of violent death; and the life of man solitary, poor, nasty, brutish, and short.

It may seem strange to some man that has not well weighed these things that nature should thus dissociate and render men apt to invade and destroy one another; and he may therefore, not trusting to this inference made from the passions, desire perhaps to have the same confirmed by experience. Let him therefore consider with himself when taking a journey he arms himself and seeks to go well accompanied, when going to sleep he locks his doors, when even in his house he locks his chests, and this when he knows there be laws and public officers, armed, to revenge all injuries shall be done opinion he has of his fellow subjects when he rides armed, of his fellow citizens when he locks his doors, and of his children and servants when he locks his chests. Does he not there as much accuse mankind by his actions as I do by my words,' But neither of us accuse man's nature in it. The desires and other passions of man are in themselves no sin. No more are the actions that proceed from those passions till they know a law that forbids them, which, till laws be made, they cannot know, nor can any law be made till they have agreed upon the person that shall make it.

It may peradventure be thought there was never such a time nor condition of war as this, and I believe it was never generally so over all the world; but there are many places where they live so now. For the savage people in many places of America, except the government of small families, the concord whereof depends on natural lust, have no government at all and live at this day in that brutish manner as I said before. Howsoever, it may be perceived what manner of life there would be where there were no common power to fear by the manner of life which men that have formerly lived under a peaceful government use to degenerate into in a civil war.

But though there had never been any time wherein particular men were in a condition of war one against another, yet in all times kings and persons of sovereign authority, because of their independency, are in continual jealousies and in the state and posture of gladiators, having their weapons pointing and their eyes fixed on one another-that is, their forts, garrisons, and guns upon the frontiers of their kingdoms, and continual spies upon their neighbors-which is a posture of war. But because they uphold thereby the industry of their subjects, there does not follow from it that misery which accompanies the liberty of particular men.

To this war of every man against every man, this also is consequent: that nothing can be unjust. The notions of right and wrong, justice and injustice, have there no place. Where there is no common power, there is no law; where no law, no injustice. Force and fraud are in war the two cardinal virtues. Justice and injustice are none of the faculties neither of the body nor mind. If they were, they might be in a man that were alone in the world, as well as his senses and passions. They are qualities that relate to men in society, not in solitude. It is consequent also to the same condition that there be no propriety, no dominion, no mine and thine distinct; but only that to be every man's that he can get, and for so long as he can keep it. And thus much for the ill condition which man by mere nature is actually placed in, though with a possibility to come out of it consisting partly in the passions, partly in his reason.

The passions that incline men to peace are fear of death, desire of such things as are necessary to commodious living, and a hope by their industry to obtain them. And reason suggests convenient articles of peace, upon which men may be drawn to agreement. These articles are they which otherwise are called the Laws of Nature, whereof I shall speak more particularly in the two following chapters.

OF THE FIRST AND SECOND NATURAL LAWS, AND OF CONTRACTS

The RIGHT OF NATURE, which writers commonly call *jus naturale*, is the liberty each man has to use his own power, as he will himself, for the preservation of his own nature that is to

say, of his own life-and consequently of doing anything which, in his own judgment and reason, he shall conceive to be the aptest means thereunto.

By LIBERTY is understood, according to the proper signification of the word, the absence of external impediments; which impediments may oft take away part of a man's power to do what he would, but cannot hinder him from using the power left him according as his judgment and reason shall dictate to him.

A LAW OF NATURE, *lex naturalis*, is a precept or general rule, found out by reason, by which a man is forbidden to do that which is destructive of his life or takes away the means of preserving the same and to omit that by which he thinks it may be best preserved. For though they that speak of this subject use to confound *jus* and *lex*, right and law, yet they ought to be distinguished; because RIGHT consists in liberty to do or to forbear, whereas LAW determines and binds to one of them; so that law and right differ as much as obligation and liberty, which in one and the same matter are inconsistent.

And because the condition of man, as has been declared in the precedent chapter, is a condition of war of every one against every which case everyone is governed by his own reason and there is nothing he can make use of that may not be a help unto him in preserving his life against his that in such a condition every man has a right to everything, even to one another's body. And therefore, as long as this natural right of every man to everything endures, there can be no security to any man, how strong or wise soever he be, of living out the time which nature ordinarily allows men to live. And consequently it is a precept or general rule of reason that every man ought to endeavor peace, as far as he has hope of obtaining it; and when he cannot obtain it, that he may seek and use all helps and advantages of war. The first branch of which rule contains the first and fundamental law of nature, which is to seek peace and follow it. The second, the sum of the right of nature, which is, by all means we can to defend ourselves.

From this fundamental law of nature, by which men are commanded to endeavor peace, is derived this second law: that a man be willing, when others are so too, as far forth as for peace and defense of himself he shall think it necessary, to lay down this right to all things, and be contented with so much liberty against other men as he would allow other men against himself. For as long as every man holds this right of doing anything he likes, so long are all men in the condition of war. But if other men will not lay down their right as well as he, then there is no reason for anyone to divest himself of his, for that were to expose himself to prey, which no man is bound to, rather than to dispose himself to peace. This is that law of the gospel: whatsoever you require that others should do to you, that do ye to them. And that law of all men, *quod tibi fieri non vis, alteri ne feceris*.I

To lay down a man's right to anything is to divest himself of the liberty of hindering another of the benefit of his own right to the same. For he that renounces or passes away his right gives not to any other man a right which he had not there is nothing to which every man had not right by only stands out of his way, that he may enjoy his own original right without hindrance from him, not without hindrance from another. So that the effect which redounds to one man by another man's defect of right is but so much diminution of impediments to the use of his own right original. Right is laid aside either by simply renouncing it or by transferring it to another. By simply RENOUNCING, when he cares not to whom the benefit thereof redounds. By TRANSFERRING, when he intends the benefit thereof to some certain person or persons. And when a man has in either manner abandoned or granted away his right, then he is said to be OBLIGED or BOUND not to hinder those to whom such right is granted or abandoned from the benefit of it; and that he ought, and it is his DUTY, not to make void that voluntary act of his

own; and that such hindrance is INJUSTICE and INJURY as being sine jure,² the right being before renounced or transferred. So that injury or injustice in the controversies of the world is somewhat like to that which in the disputations of scholars is called absurdity. For as it is there called an absurdity to contradict what one maintained in the beginning, so in the world it is called injustice and injury voluntarily to undo that which from the beginning he had voluntarily done. The way by which a man either simply renounces or transfers his right is a declaration or signification by some voluntary and sufficient sign or signs that he does so renounce or transfer, or has so renounced or transferred, the same to him that accepts it. And these signs are either words only or actions only; or as it happens most often, both words and actions. And the same are the Bonds by which men are bound and obliged to bonds that have their strength, not from their own nature, for nothing is more easily broken than a man's word, but from fear of some evil consequence upon the rupture.

Whensoever a man transfers his right or renounces it, it is either in consideration of some right reciprocally transferred to himself or for some other good he hopes for thereby. For it is a voluntary act; and of the voluntary acts of every man, the object is some good to himself. And therefore there be some rights which no man can be understood by any words or other signs to have abandoned or transferred. As, first, a man cannot lay down the right of resisting them that assault him by force to take away his life, because he cannot be understood to aim thereby at any good to himself. The same may be said of wounds and chains and imprisonment, both because there is no benefit consequent to such patience as there is to the patience of suffering another to be wounded or imprisoned, as also because a man cannot tell, when he sees men proceed against him by violence, whether they intend his death or not. And, lastly, the motive and end for which this renouncing and transferring of right is introduced is nothing else but the security of a man's person in his life and in the means of so preserving life as not to be weary of it. And therefore if a man by words or other signs seem to despoil himself of the end for which those signs were intended, he is not to be understood as if he meant it or that it was his will, but that he was ignorant of how such words and actions were to be interpreted.

The mutual transferring of right is that which men call CONTRACT.

There is difference between transferring of right to the thing and transferring, or tradition-that is, delivery-of the thing itself. For the thing may be delivered together with the translation of the right, as in buying and selling with ready money or exchange of goods or lands, and it may be delivered some time after.

Again, one of the contractors may deliver the thing contracted for on his part and leave the other to perform his part at some determinate time after and in the meantime be trusted, and then the contract on his part is called PACT or COVENANT; or both parts may contract now to perform hereafter, in which cases he that is to perform in time to come, being trusted, his performance is called keeping of promise or faith, and the failing of performance, if it be voluntary, violation of faith.

When the transferring of right is not mutual, but one of the parties transfers in hope to gain thereby friendship or service from another or from his friends, or in hope to gain the reputation of charity or magnanimity, or to deliver his mind from the pain of compassion, or in hope of reward in heaven-this is not contract but GIFT, FREE GIFT, GRACE, which words signify one and the same thing.

Signs of contract are either express or by inference. Express are words spoken with understanding of what they signify, and such words are either of the time present or past-as I give, I grant, I have given, I have granted, I will that this be yours-or of the future-as I will give, I

will grant--of which words of the future are called PROMISE.

Signs by inference are sometimes the consequence of words, sometimes the consequence of silence, sometimes the consequence of actions, sometimes the consequence of forbearing an action; and generally a sign by inference of any contract is whatsoever sufficiently argues the will of the contractor.

Words alone, if they be of the time to come and contain a bare promise, are an insufficient sign of a free gift and therefore not obligatory. For if they be of the time to come, as tomorrow I will give, they are a sign I have not given yet and consequently that my right is not transferred but remains till I transfer it by some other act. But if the words be of the time present or past, as I have given or do give to be delivered tomorrow, then is my tomorrow's right given away today, and that by the virtue of the words though there were no other argument of my will. And there is a great difference in the signification of these words: *volo hoc tuum esse eras* and *eras dabo*--that is, between I will that this be yours tomorrow and I will give it you tomorrow--for the word I will, in the former manner of speech, signifies an act of the will present, but in the latter it signifies a promise of an act of the will to come; and therefore the former words, being of the present, transfer a future right; the latter, that be of the future, transfer nothing. But if there be other signs of the will to transfer a right besides words, then, though the gift be free, yet may the right be understood to pass by words of the future: as if a man propound a prize to him that comes first to the end of a race, the gift is free; and though the words be of the future, yet the right passes; for if he would not have his words so be understood, he should not have let them run.

In contracts, the right passes not only where the words are of the time present or past but also where they are of the future, because all contract is mutual translation or change of right, and therefore he that promises only because he has already received the benefit for which he promises is to be understood as if he intended the right should pass; for unless he had been content to have his words so understood, the other would not have performed his part first. And for that cause, in buying and selling and other acts of contract a promise is equivalent to a covenant and therefore obligatory.

He that performs first in the case of a contract is said to MERIT that which he is to receive by the performance of the other; and he has it as due. Also when a prize is propounded to many which is to be given to him only that wins, or money is thrown among many to be enjoyed by them that catch it, though this be a free gift, yet so to win or so to catch is to merit and to have it as DUE. For the right is transferred in the propounding of the prize and in throwing down the money, though it be not determined to whom but by the event of the contention. But

there is between these two sorts of merit this difference: that in contract I merit by virtue of my own power and the contractor's need, but in this case of free gift I am enabled to merit only by the benignity of the giver; in contract I merit at the contractor's hand that he should depart with his right, in this case of gift I merit not that the giver should part with his right but that when he has parted with it, it should be mine rather than another's. And this I think to be the meaning of that distinction of the Schools between *meritum congrui* and *meritum condigni*.³ For God Almighty having promised Paradise to those men, hoodwinked with carnal desires, that can walk through this world according to the precepts and limits prescribed by him, they say he that shall so walk shall merit Paradise *ex congruo*. But because no man can demand a right to it, by his own righteousness or any other power in himself, but by the free grace of God only, they say no man can merit Paradise *ex condigno*. This, I say, I think is the meaning of that distinction; but because disputers do not agree upon the signification of their own terms of art longer than it

serves their turn, I will not affirm anything of their meaning; only this I say: when a gift is given indefinitely, as a prize to be contended for, he that wins merits and may claim the prize as due.

If a covenant be made wherein neither of the parties perform presently but trust one another, in the condition of mere nature, which is a condition of war of every man against every man, upon any reasonable suspicion, it is void; but if there be a common power set over them both, with right and force sufficient to compel performance, it is not void. For he that performs first has no assurance the other will perform after, because the bonds of words are too weak to bridle men's ambition, avarice, anger, and other passions without the fear of some coercive power which in the condition of mere nature, where all men are equal and judges of the justness of their own fears, cannot possibly be supposed. And therefore he which performs first does but betray himself to his enemy, contrary to the right he can never abandon of defending his life and means of living.

But in a civil estate, where there is a power set up to constrain those that would otherwise violate their faith, that fear is no more reasonable; and for that cause, he which by the covenant is to perform first is obliged so to do.

The cause of fear which makes such a covenant invalid must be always something arising after the covenant made, as some new fact or other sign of the will not to perform; else it cannot make the covenant void. For that which could not hinder a man from promising ought not to be admitted as a hindrance of performing.

He that transfers any right transfers the means of enjoying it, as far as lies in his power. As he that sells land is understood to transfer the herbage and whatsoever grows upon it; nor can he that sells a mill turn away the stream that drives it. And they that give to a man the right of government in sovereignty are understood to give him the right of levying money to maintain soldiers and of appointing magistrates for the administration of justice.

To make covenants with brute beasts is impossible because, not understanding our speech, they understand not nor accept of any translation of right, nor can translate any right to another; and without mutual acceptation there is no covenant.

To make covenant with God is impossible but by mediation of such as God speaks to, either by revelation supernatural or by his lieutenants that govern under him and in his name; for otherwise we know not whether our covenants be accepted or not. And therefore they that vow anything contrary to any law of nature vow in vain, as being a thing unjust to pay such vow. And if it be a thing commanded by the law of nature, it is not the vow but the law that binds them.

The matter or subject of a covenant is always something that falls under deliberation, for to covenant is an act of the will-that is to say, an act, and the last act, of deliberation-and is therefore always understood to be something to come, and which is judged possible for him that covenants to perform.

And therefore to promise that which is known to be impossible is no covenant. But if that prove impossible afterwards which before was thought possible, the covenant is valid, and binds, though not to the thing itself, yet to the

value, or, if that also be impossible, to the unfeigned endeavor of performing as much as is possible, for to more no man can be obliged.

Men are freed of their covenants two ways: by performing or by being forgiven. For performance is the natural end of obligation, and forgiveness the restitution of liberty, as being a retransferring of that right in which the obligation consisted.

Covenants entered into by fear, in the condition of mere nature, are obligatory. For example, if I covenant to pay a ransom or service for my life to an enemy, I am bound by it; for it

is a contract, wherein one receives the benefit of life, the other is to receive money or service for it; and consequently, where no other law, as in the condition of mere nature, forbids the performance, the covenant is valid. Therefore prisoners of war, if trusted with the payment of their ransom, are obliged to pay it; and if a weaker prince make a disadvantageous peace with a stronger, for fear, he is bound to keep it; unless, as has been said before, there arises some new and just cause of fear to renew the war. And even in commonwealths, if I be forced to redeem myself from a thief by promising him money, I am bound to pay it till the civil law discharge me. For whatsoever I may lawfully do without obligation, the same I may lawfully covenant to do through fear; and what I lawfully covenant, I cannot lawfully break. A former covenant makes void a later. For a man that has passed away his right to one man today has it not to pass tomorrow to another; and therefore the later promise passes no right, but is null.

A covenant not to defend myself from force by force is always void. For, as I have showed before, no man can transfer or lay down his right to save himself from death, wounds, and imprisonment, the avoiding whereof is the only end of laying down any right; and therefore the promise of not resisting force in no covenant transfers any right, nor is obliging. For though a man may covenant thus: unless I do so or so, kill me, he cannot covenant thus: unless I do so or so, I will not resist you when you come to kill me. For man by nature chooses the lesser evil, which is danger of death in resisting, rather than the greater, which is certain and present death in not resisting. And this is granted to be true by all men, in that they lead criminals to execution and prison with armed men, notwithstanding that such criminals have consented to the law by which they are condemned.

A covenant to accuse oneself, without assurance of pardon, is likewise invalid. For in the condition of nature, where every man is judge, there is no place for accusation; and in the civil state, the accusation is followed with punishment, which, being force, a man is not obliged not to resist. The same is also true of the accusation of those by whose condemnation a man falls into misery, as of a father, wife, or benefactor. For the testimony of such an accuser, if it be not willingly given, is presumed to be corrupted by nature, and therefore not to be received; and where a man's testimony is not to be credited, he is not bound to give it. Also accusations upon torture are not to be reputed as testimonies. For torture is to be used but as means of conjecture and light in the further examination and search of truth; and what is in that case confessed tends to the ease of him that is tortured, not to the informing of the torturers, and therefore ought not to have the credit of a sufficient testimony; for whether he deliver himself by true or false accusation, he does it by the right of preserving his own life.

The force of words being, as I have formerly noted, too weak to hold men to the performance of their covenants, there are in man's nature but two imaginable helps to strengthen it. And those are either a fear of the consequence of breaking their word, or a glory or pride in appearing not to need to break it. This latter is a generosity too rarely found to be presumed on, especially in the pursuers of wealth, command, or sensual pleasure-which are the greatest part of mankind. The passion to be reckoned upon is fear, whereof there be two very general objects: one, the power of spirits invisible; the other, the power of those men they shall therein offend. Of these two, though the former be the greater power, yet the fear of the latter is commonly the greater fear. The fear of the former is in every man his own religion, which has place in the nature of man before civil society. The latter has not so,

at least not place enough to keep men to their promises, because in the condition of mere nature the inequality of power is not discerned but by the event of battle. So that before the time of civil society, or in the interruption thereof by war, there is nothing can strengthen a covenant

of peace agreed on against the temptations of avarice, ambition, lust, or other strong desire but the fear of that invisible power, which they everyone worship as God and fear as a revenger of their perfidy. All therefore that can be done between two men not subject to civil power is to put one another to swear by the God he fears, which swearing or OATH is a form of speech, added to a promise, by which he that promises signifies that, unless he perform, he renounces the mercy of his God, or calls to him for vengeance on himself. Such was the heathen form, Let Jupiter kill me else, as I kill this beast. So is our form, I shall do thus and thus, so help me God. And this, with the rites and ceremonies which everyone uses in his own religion, that the fear of breaking faith might be the greater.

By this it appears that an oath taken according to any other form or rite than his that swears is in vain and no oath, and that there is no swearing by anything which the swearer thinks not God. For though men have sometimes used to swear by their kings, for fear or flattery, yet they would have it thereby understood they attributed to them divine honor. And that swearing unnecessarily by God is but profaning of his name; and swearing by other things, as men do in common discourse, is not swearing but an impious custom gotten by too much vehemence of talking.

It appears also that the oath adds nothing to the obligation. For a covenant, if lawful, binds in the sight of God without the oath as much as with it; if unlawful, binds not at all, though it be confirmed with an oath.

OF OTHER LAWS OF NATURE

From that law of nature by which we are obliged to transfer to another such rights as, being retained, hinder the peace of mankind, there follows a third, which is this: that men perform their covenants made; without which covenants are in vain and but empty words, and, the right of all men to all things remaining, we are still in the condition of war.

And in this law of nature consists the fountain and original of JUSTICE. For where no covenant has preceded there has no right been transferred, and every man has right to every thing; and consequently no action can be unjust. But when a covenant is made, then to break it is unjust; and the definition of INJUSTICE is no other than the not performance of covenant. And whatsoever is not unjust is just.

But because covenants of mutual trust, where there is a fear of not performance on either part, as has been said in the former chapter, are invalid, though the original of justice be the making of covenants, yet injustice actually there can be none till the cause of such fear be taken away, which, while men are in the natural condition of war, cannot be done. Therefore, before the names of just and unjust can have place, there must be some coercive power to compel men equally to the performance of their covenants by the terror of some punishment greater than the benefit they expect by the breach of their covenant, and to make good that propriety which by mutual contract men acquire in recompense of the universal right they abandon; and such power there is none before the erection of a commonwealth. And this is also to be gathered out of the ordinary definition of justice in the Schools, for they say that justice is the constant will of giving to every man his own. And therefore where there is no own-that is, no propriety-there is no injustice; and where there is no coercive power erected-that is, where there is no commonwealth-there is no propriety, all men having right to all things; therefore, where there is no commonwealth, there nothing is unjust. So that the nature of justice consists in keeping of valid covenants; but the validity of covenants begins not but with the constitution of a civil power sufficient to compel men to keep them; and then it is also that propriety begins.

The fool hath said in his heart, there is no such thing as justice,⁴ and sometimes also with

his tongue, seriously alleging that, every man's conservation and contentment being committed to his own care, there could be no reason why every man might not do what he thought

conducted thereunto; and therefore also to make or not make, keep or not keep covenants was not against reason when it conducted to one's benefit. He does not therein deny that there be covenants and that they are sometimes broken, sometimes kept, and that such breach of them may be called injustice and the observance of them justice; but he questions whether injustice, taking away the fear of God-for the same fool hath said in his heart there is no God-may not sometimes stand with that reason which dictates to every man his own good, and particularly then when it conduces to such a benefit as shall put a man in a condition to neglect not only the dispraise and revilings, but also the power of other men. The kingdom of God is gotten by violence; but what if it could be gotten by unjust violence? Were it against reason so to get it, when it is impossible to receive hurt by it? And if it be not against reason, it is not against justice, or else justice is not to be approved for good. From such reasoning as this, successful wickedness has obtained the name of virtue; and some that in all other things have disallowed the violation of faith yet have allowed it when it is for the getting of a kingdom. And the heathen that believed that Saturn was deposed by his son Jupiter believed nevertheless the same Jupiter to be the avenger of injustice-somewhat like to a piece of law in Coke's Commentaries on Littleton-" where he says: if the right heir of the crown be attainted of treason, yet the crown shall descend to him and eo instante the attainder be void; from which instances a man will be very prone to infer that when the heir apparent of a kingdom shall kill him that is in possession, though his father, you may call it injustice or by what other name you will, yet it can never be against reason, seeing all the voluntary actions of men tend to the benefit of themselves, and those actions are most reasonable that conduce most to their ends. This specious reasoning is nevertheless false.

For the question is not of promises mutual where there is no security of performance on either when there is no civil power erected over the parties promising-for such promises are no covenants; but either where one of the parties has performed already or where there is a power to make him perform, there is the question whether it be against reason-that is, against the benefit of the otherto perform or not. And I say it is not against reason. For the manifestation whereof we are to consider, first, that when a man does a thing which, notwithstanding anything can be foreseen and reckoned on, tends to his own destruction, howsoever some accident which he could not expect, arriving, may turn it to his benefit, yet such events do not make it reasonably or wisely done. Secondly, that in a condition of war, wherein every man to every man, for want of a common power to keep them all in awe, is an enemy, there is no man who can hope by his own strength or wit to defend himself from destruction without the help of confederates, where everyone expects the same defense by the confederation that anyone else does; and therefore he which declares he thinks it reason to deceive those that help him can in reason expect no other means of safety than what can be had from his own single power. He, therefore, that breaks his covenant, and consequently declares that he thinks he may with reason do so, cannot be received into any society that unite themselves for peace and defense, but by the error of them that receive him; nor, when he is received, be retained in it without seeing the danger of their error, which errors a man cannot reasonably reckon upon as the means of his security; and therefore if he be left or cast out of society he perishes, and if he live in society, it is by the errors of other men, which he could not foresee nor reckon upon, and consequently against the reason of his preservation; and so, as all men that contribute not to his destruction, forbear him only out of ignorance of what is good for themselves.

As for the instance of gaining the secure and perpetual felicity of heaven by any way, it is frivolous, there being but one way imaginable, and that is not breaking but keeping of covenant.

And for the other instance of attaining sovereignty by rebellion, it is manifest that, though the event follow, yet because it cannot reasonably be expected, but rather the contrary, and because by gaining it so others are taught to gain the same in like manner, the attempt thereof is against reason.

Justice, therefore-that is to say, keeping of covenant-is a rule of reason by which we are forbidden to do anything destructive to our life, and consequently a law of nature.

There be some that proceed further and will not have the law of nature to be those rules which conduce to the preservation of man's life on earth but to the attaining of an eternal felicity after death, to which they think the breach of covenant may conduce and consequently be just and reasonable; such are they that think it a work of merit to kill or depose or rebel against the sovereign power constituted over them by their own consent. But because there is no natural knowledge of man's estate after death-much less of the reward that is then to be given to breach of only a belief grounded upon other men's saying that they know it supernaturally, or that they know those that knew them that knew others that knew it supernaturally, breach of faith cannot be called a precept of reason or nature.

Others that allow for a law of nature the keeping of faith do nevertheless make exception of certain persons, as heretics and such as use not to perform their covenant to others; and this also is against reason. For if any fault of a man be sufficient to discharge our covenant made, the same ought in reason to have been sufficient to have hindered the making of it.

The names of just and unjust, when they are attributed to men, signify one thing, and when they are attributed to actions, another. When they are attributed to men, they signify conformity or inconformity of manners to reason. But when they are attributed to actions, they signify the conformity or inconformity to reason, not of manners or manner of life, but of particular actions. A just man, therefore, is he that takes all the care he can that his actions may be all just; and an unjust man is he that neglects it. And such men are more often in our language styled by the names of righteous and unrighteous than just and unjust, though the meaning be the same. Therefore a righteous man does not lose that title by one or a few unjust actions that proceed from sudden passion or mistake of things or persons; nor does an unrighteous man lose his character for such actions as he does or forbears to do for fear, because his will is not framed by the justice but by the apparent benefit of what he is to do. That which gives to human actions the relish of justice is a certain nobleness or gallantness of courage, rarely found, by which a man scorns to be beholden for the contentment of his life to fraud or breach of promise. This justice of the manners is that which is meant where justice is called a virtue and injustice a vice.

But the justice of actions denominates men, not just, but guiltless; and the injustice of the same, which is also called injury, gives them but the name of guilty.

Again, the injustice of manners is the disposition or aptitude to do injury, and is injustice before it proceed to act and without supposing any individual person injured. But the injustice of an action-that is to say, injury-supposes an individual person injured-namely, him to whom the covenant was made-and therefore many times the injury is received by one man when the damage redounds to another. As when the master commands his servant to give money to a stranger: if it be not done, the injury is done to the master, whom he had before covenanted to obey; but the damage redounds to the stranger, to whom he had no obligation and therefore could not injure him. And so also in commonwealths private men may remit to one another their debts but not robberies or other violences whereby they are endamaged; because the detaining of debt

is an injury to themselves, but robbery and violence are injuries to the person of the commonwealth.

Whatsoever is done to a man, conformable to his own will signified to the doer, is no injury to him. For if he that does it has not passed away his original right to do what he please by some antecedent covenant, there is no breach of covenant and therefore no injury done him. And if he have, then his will to have it done, being signified, is a release of that covenant, and so again there is no injury done him.

Justice of actions is by writers divided into commutative and distributive; and the former they say consists in proportion arithmetical, the latter in proportion geometrical. Commutative, therefore, they place in the equality of value of

the things contracted for, and distributive in the distribution of equal benefit to men of equal merit. As if it were injustice to sell dearer than we buy, or to give more to a man than he merits. The value of all things contracted for is measured by the appetite of the contractors, and therefore the just value is that which they be contented to give. And merit (besides that which is by covenant, where the performance on one part merits the performance of the other part, and falls under justice commutative, not distributive) is not due by justice, but is rewarded of grace only. And therefore this distinction, in the sense wherein it uses to be expounded, is not right. To speak properly, commutative justice is the justice of a performance of covenant in buying and selling, hiring and letting to hire, lending and borrowing, exchanging, bartering, and other acts of contract.

And distributive justice, the justice of an arbitrator that is to say, the act of defining what is just. Wherein, being trusted by them that make him arbitrator, if he perform his trust, he is said to distribute to every man his own; and this is indeed just distribution, and may be called, though improperly, distributive justice, but more properly equity, which also is a law of nature, as shall be shown in due place.

As justice depends on antecedent covenant, so does GRATITUDE depend on antecedent is to say, antecedent free gift-and is the fourth law of nature, which may be conceived in this form: that a man which receives benefit from another of meregrace endeavor that he which gives it have no reasonable cause to repent him of his good will. For no man gives but with intention of good to himself, because gift is voluntary, and of all voluntary acts the object is to every man his own good; of which if men see they shall be frustrated, there will be no beginning of benevolence or trust nor consequently of mutual help nor of reconciliation of one man to another; and therefore they are to remain still in the condition of war, which is contrary to the first and fundamental law of nature, which commands men to seek peace. The breach of this law is called ingratitude, and has the same relation to grace that injustice has to obligation by covenant.

A fifth law of nature is COMPLAISANCE-that is to say, that every man strive to accommodate himself to the rest. For the understanding whereof we may consider that there is in men's aptness to society a diversity of nature rising from their diversity of affections not unlike to that we see in stones brought together for building of an edifice. For as that stone which by the asperity and irregularity of figure takes more room from others than itself fills, and for the hardness cannot be easily made plain and thereby hinders the building, is by the builders cast away as unprofitable and troublesome, so also a man that by asperity of nature will strive to retain those things which to himself are superfluous and to others necessary, and for the stubbornness of his passions cannot be corrected, is to be left or cast out of society as cumbersome thereunto. For seeing every man, not only by right but also by necessity of nature,

is supposed to endeavor all he can to obtain that which is necessary for his conservation, he that shall oppose himself against it for things superfluous is guilty of the war that thereupon is to follow, and therefore does that which is contrary to the fundamental law of nature, which commands to seek peace. The observers of this law may be called SOCIABLE (the Latins call them *commodi*), the contrary stubborn, insociable, forward, intractable.

A sixth law of nature is this: that upon caution of the future time, a man ought to pardon the offenses past of them that, repenting, desire it. For PARDON is nothing but granting of peace, which, though granted to them that persevere in their hostility, be not peace but fear, yet, not granted to them that give caution of the future time, is sign of an aversion to peace, and therefore contrary to the law of nature.

A seventh is that in revenges-that is, retribution of evil for evil-men look not at the greatness of the evil past, but the greatness of the good to follow. Whereby we are forbidden to inflict punishment with any other design than for correction of the offender or direction of others. For this law is consequent to the next before it that commands pardon upon security of the future time. Besides, revenge without respect to the example and profit to come is a triumph or glorying in the hurt of another, tending to no end; for the

end is always somewhat to come, and glorying to no end is vainglory and contrary to reason; and to hurt without reason tends to the introduction of war, which is against the law of nature and is commonly styled by the name of cruelty.

And because all signs of hatred or contempt provoke to fight, insomuch as most men choose rather to hazard their life than not to be revenged, we may in the eighth place for a law of nature set down this precept: that no man by deed, word, countenance, or gesture declare hatred or contempt of another. The breach of which law is commonly called contumely.

The question who is the better man has no place in the condition of mere nature, where, as has been shown before, all men are equal. The inequality that now is has been introduced by the laws civil. I know that Aristotle in the first book of his *Politics*, for a foundation of his doctrine, makes men by nature some more worthy to command, meaning the wiser sort such as he thought himself to be for his philosophy, others to serve, meaning those that had strong bodies but were not philosophers as he; as if master and servant were not introduced by consent of men but by difference of wit, which is not only against reason but also against experience. For there are very few so foolish that had not rather govern themselves than be governed by others; nor when the wise in their own conceit contend by force with them who distrust their own wisdom, do they always, or often, or almost at any time, get the victory. If nature therefore have made men equal, that equality is to be acknowledged; or if nature have made men unequal, yet because men that think themselves equal will not enter into conditions of peace but upon equal terms, such equality must be admitted. And therefore for the ninth law of nature, I put this: that every man acknowledge another for his equal by nature. The breach of this precept is pride.

On this law depends another: that at the entrance into conditions of peace, no man require to reserve to himself any right which he is not content should be reserved to every one of the rest. As it is necessary for all men that seek peace to lay down certain rights of nature-that is to say, not to have liberty to do all they list-so is it necessary for man's life to retain some, as right to govern their own bodies, enjoy air, water, motion, ways to go from place to place, and all things else without which a man cannot live or not live well. If in this case, at the making of peace, men require for themselves that which they would not have to be granted to others, they do contrary to the precedent law that commands the acknowledgment of natural equality and therefore also against the law of nature. The observers of this law are those we call modest, and the breakers

arrogant men. The Greeks call the violation of this law *n4ovc* is-that is, a desire of more than their share.

Also if a man be trusted to judge between man and man, it is a precept of the law of nature that he deal equally between them. For without that, the controversies of men cannot be determined but by war. He, therefore, that is partial in judgment does what in him lies to deter men from the use of judges and arbitrators, and consequently, against the fundamental law of nature, is the cause of war.

The observance of this law, from the equal distribution to each man of that which in reason belongs to him, is called *EQUIT'Y* and, as I have said before, distributive justice; the violation, acception of persons,

And from this follows another law: that such things as cannot be divided be enjoyed in common, if it can be; and if the quantity of the thing permit, without stint; otherwise proportionably to the number of them that have right. For otherwise the distribution is unequal and contrary to equity.

But some things there be that can neither be divided nor enjoyed in common. Then the law of nature, which prescribes equity, requires that the entire right, or else-making the use alternatethe first possession, be determined by lot. For equal distribution is of the law of nature; and other means of equal distribution cannot be imagined.

Of lots there be two sorts: arbitrary and natural. Arbitrary is that which is agreed on by the competitors; natural is either primogeniture (which the Greek calls *which* signifies given by lot) or first seizure.

And therefore those things which cannot be enjoyed in common, nor divided, ought to be adjudged to the first possessor; and in some cases to the first-born, as acquired by lot.

It is also a law of nature that all men that mediate peace be allowed safe conduct. For the law that commands peace, as the end, commands intercession, as the means; and to intercession the means is safe conduct.

And because, though men be never so willing to observe these laws, there may nevertheless arise questions concerning a man's action-first, whether it were done or not done; secondly, if done, whether against the law or not against the law; the former whereof is called a question of fact, the latter a question of right-therefore, unless the parties to the question covenant mutually to stand to the sentence of another, they are as far from peace as ever. This other to whose sentence they submit is called an *ARBITRATOR*. And therefore it is of the law of nature that they that are at controversy submit their right to the judgment of an arbitrator.

And seeing every man is presumed to do all things in order to his own benefit, no man is a fit arbitrator in his own cause; and if he were never so fit, yet, equity allowing to each party equal benefit, if one be admitted to be judge the other is to be admitted also; and so the controversy-that is, the cause of war-remains against the law of nature.

For the same reason no man in any cause ought to be received for arbitrator to whom greater profit or honor or pleasure apparently arises out of the victory of one party than of the other; for he has taken, though an unavoidable bribe, yet a bribe, and no man can be obliged to trust him. And thus also the controversy and the condition of war remains, contrary to the law of nature.

And in a controversy of fact, the judge being to give no more credit to one than to the other, if there be no other arguments, must give credit to a third, or to a third and fourth, no more; for else the question is undecided and left to force, contrary to the law of nature.

These are the laws of nature dictating peace for a means of the conservation of men in

multitudes, and which only concern the doctrine of civil society. There be other things tending to the destruction of particular men-as drunkenness and all other parts of intemperance-which may therefore also be reckoned among those things which the law of nature has forbidden, but are not necessary to be mentioned nor are pertinent enough to this place.

And though this may seem too subtle a deduction of the laws of nature to be taken notice of by all men-whereof the most part are too busy in getting food and the rest too negligent to understand-yet to leave all men inexcusable they have been contracted into one easy sum, intelligible even to the meanest capacity, and that is Do not that to another which you would not have done to yourself, which shows him that he has no more to do in learning the laws of nature but, when weighing the actions of other men with his own they seem too heavy, to put them into the other part of the balance and his own into their place, that his own passions and self-love may add nothing to the weight, and then there is none of these laws of nature that will not appear unto him very reasonable.

The laws of nature oblige in foro interno⁶that is to say, they bind to a desire they should take place-but in foro externo⁷-that is, to the putting them in act-not always. For he that should be modest and tractable and perform all he promises in such time and place where no man else should do so should but make himself a prey to others and procure his own certain ruin, contrary to the ground of all laws of nature, which tend to nature's preservation. And again, he that, having sufficient security that others shall observe the same laws toward him, observes them not himself, seeks not peace but war and consequently the destruction of his nature by violence.

And whatsoever laws bind in foro interno may be broken, not only by a fact contrary to the law, but also by a fact according to it, in case a man think it contrary. For though his action in this case be according to the law, yet his purpose was against the law, which, where the obligation is in foro interno, is a breach.

The laws of nature are immutable and eternal, for injustice, ingratitude, arrogance, pride, iniquity, acception of persons, and the rest can never be made lawful. For it can never be that war shall preserve life and peace destroy it.

The same laws, because they oblige only to a desire and endeavor-I mean an unfeigned and constant endeavor-are easy to be observed. For in that they require nothing but endeavor, he that endeavors their performance fulfills them; and he that fulfills the law is just.

And the science of them is the true and only moral philosophy. For moral philosophy is nothing else but the science of what is good and evil in the conversation and society of mankind. Good and evil are names that signify our appetites and aversions, which in different tempers, customs, and doctrines of men are different; and divers men differ not only in their judgment on the senses of what is pleasant and unpleasant to the taste, smell, hearing, touch, and sight but also of what is conformable or disagreeable to reason in the actions of common life. Nay, the same man in divers times differs from himself, and one time praises that is, calls good-what another time he dispraises and calls evil; from whence arise disputes, controversies, and at last war. And therefore so long as a man is in the condition of mere nature, which is a condition of war, private appetite is the measure of good and evil; and consequently all men agree on this: that peace is good, and therefore also the way or means of peace, which, as I have showed before, are justice, gratitude, modesty, equity, mercy, and the rest of the laws of nature, are good-that is to say, moral their contrary vices evil. Now the science of virtue and vice is moral philosophy; and therefore the true doctrine of the laws of nature is the true moral philosophy. But the writers of moral philosophy, though they acknowledge the same virtues and vices, yet, not seeing wherein consisted their goodness nor that they come to be praised as the means of peaceable, sociable,

and comfortable living, place them in a mediocrity of passions; as if not the cause but the degree of daring made fortitude, or not the cause but the quantity of a gift made liberality.

These dictates of reason men used to call by the name of laws, but improperly, for they are but conclusions or theorems concerning what conduces to the conservation and defense of themselves, whereas law, properly, is the word of him that by right has command over others. But yet if we consider the same theorems as delivered in the word of God, that by right commands all things, then are they properly called laws.

NOTES

1. [Matt. 7:12; Luke 6:31. The Latin expresses the same rule negatively: "What you would not have done to you, do not do to others."]
2. [Without legal basis.]
3. [Merit based on conformity and merit based on worthiness.]
4. [Pss. 14, 53.1]
5. [Sir Edward Coke (1552-1634), English jurist, the first Lord Chief Justice of England. The first volume of his Institutes was a translation of, and commentary on, the Treatise on Tenures of Sir Thomas de Littleton (c. 1407-1481). It is commonly called Coke on Littleton.]
6. [In conscience.]
7. [In civil law.]

God and Morality

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Many people in our society learn ethics in a religious context. A lot of parents combine ethical and religious education of children in the home, and ethical instruction is a major activity of religious institutions. So it is not surprising that many people think there is a close connection between religion and ethics. Monotheists, religious people who believe in one God, can find in their traditions support for the idea that there is such a connection. Judaism, Christianity, and Islam, which are the major forms of monotheism, all share the view that the Hebrew Bible, which Christians call the Old Testament, has religious authority. Its stories paint a picture in which ethics depends on God. Both Exodus 20:1-17 and Deuteronomy 5:6-21, which recount the revelation of the Ten Commandments, also known as the Decalogue, portray God as communicating with the human persons with whom a covenant is being established about how they ought to live their lives by issuing commands to them. It thus is natural enough to suppose that the ethical authority of the Decalogue depends on the fact that it is divinely commanded or, more precisely, on the fact that its commands express God's will.

life of Jesus agree that the Christian ethics of love for one another takes the form of a command. If Jesus is God the Son, as traditional Christians believe, this command has its source in and expresses the will of God. This supposition is reinforced in the Christian New Testament. It is a striking feature of its ethics of love that love is the subject of a command. In Matthew's Gospel, Jesus of Nazareth states the command in response to a lawyer who asks which commandment is the greatest. Jesus replies: "You shall love the Lord your God with your whole heart, with your

whole soul, and with all your mind. This is the greatest and the first commandment. The second is like it: You shall love your neighbor as yourself" (Matthew 22:37-39). Mark 12:29-31 tells of Jesus giving essentially the same answer to a scribe, and Luke 10:27-28 speaks of a lawyer giving this answer to a question from Jesus and being told by Jesus that it is correct. And in his last discourse to them, reported in John's Gospel, Jesus tells his followers that "the command I give you is this, that you love one another" (John 15:17). So the authors of these narratives of the

It is therefore clear that monotheists in general, and Christians in particular, can discover deep in their sacred scriptures the roots of the philosophical position known as theological voluntarism, which is the view that ethics depends on God's will. However, as people grow up, they normally question the ethical lore they have picked up from their parents or in the synagogue, the church, or the mosque. Theological voluntarism raises many questions in modern societies, in part because such societies are becoming increasingly secular in their public culture. Must ethics have religious foundations? In Dostoyevsky's novel *The Brothers Karamazov*, the character Ivan proclaims that everything is permitted if there is no God. Ivan's view seems to be just what one would expect someone who thinks ethics depends on religion to hold. But it is alarming. It suggests that a decline in religious belief would bring with it catastrophic consequences for ethics. Can ethics have religious foundations? Perhaps ethics can only be securely anchored in a scientific culture if grounded or based on scientific knowledge. But this too is an alarming suggestion. Popularizations of evolutionary theory seem to tell us that evolution selects for selfish behavior and selects against unselfish behavior, except when it is directed toward close biological kin or others who are likely to reciprocate. Philosophy can help us to think clearly and rigorously about questions concerning the relations between ethics and religion. Some of those questions are the topic of this essay. Let me try to clarify the exact questions to be considered.

Up to this point in the discussion, I have spoken mainly of relations between ethics and religion. However, this way of framing the issues is too broad for a couple of reasons, one having to do with religion and the other with ethics. The concept of religion applies to many different phenomena. In advaita Hinduism, for example, the ultimate religious reality, Brahman, is an impersonal ground of being rather than a

personal deity. Brahman has no will and issues no commands. Of course advaita Hinduism has a great deal to say about how people should live their lives and how, in particular, they should be related to Brahman. But its ethical teachings, though they are religious, make no appeals to divine commands. Similarly, Theravada Buddhism does not acknowledge a personal deity. It has a lot to say about how people should live in order to reach eventually the good of religious liberation, but these ethical doctrines make no reference to God's will. Theological voluntarism is not a live option within these two religious traditions. It is important to be sensitive to the variety of ethical views within the major religions of the world, but it would be impossible to do justice to all such views within the confines of a single essay. So I must focus more narrowly. My choice is to restrict my attention to the monotheistic religions, chiefly because they are the ones I know best, and to emphasize Christianity, because it is my own tradition. It should therefore be kept in mind that what I have to say simply does not apply to religious traditions that are not monotheistic.

Nor will it be possible for me to range over the whole territory of ethics. The subject matter of ethics is how people should live their lives, and it has many different parts. For example, people need certain character traits in order to live well, and so a complete ethics will contain an account of virtues and vices. A complete ethics will also address questions about the

contribution of emotions to living well. Some people think that living well involves eliminating painful feelings from one's life if one can do so; others argue that someone who felt no painful sorrow upon encountering a suffering child could not be sufficiently responsive to the true nature of suffering to be living well. Among the parts of ethics, one concerns duties, actions, or refrainings from action that seem to be required from us or demanded of us. Some philosophers refer to this subdomain within ethics as morality. Thus understood, morality concerns what we must do or must not do, and so it is natural to think of ourselves as living under one or more moral laws. In order to keep the size of this essay within manageable bounds, I shall confine my attention to morality. Hence I do not aspire to present a fully general treatment of ethics and religion; instead I plan to concentrate on the connection between morality and monotheism. The theory about that connection to be investigated is theological voluntarism restricted to the moral subdomain of ethics. Following the majority of recent philosophers who have written on this topic, I shall formulate the version of theological voluntarism under consideration in terms of God's commands. So the essay's specific topic is divine command morality.

It is worth mentioning that, though divine command morality has been an important part of the history of Christian moral thought, it has competitors. In the Roman Catholic tradition, natural law morality is a prominent example. According to natural law theory, moral law is natural in the sense that it can be known by human reason apart from any revelation from God. Natural lawyers, as proponents of this view are often called, therefore think that people who are not monotheists can have genuine moral knowledge of natural law. St. Thomas Aquinas makes this clear when he says that all people know "the common principles of the natural law" (*Summa Theologiae* I-II, 93, 2). However, Aquinas also holds that natural law is not independent of God. He tells us that "participation of the eternal law in a rational creature is called natural law" (*Summa Theologiae* I-II, 91, 2), and the eternal law is law of which God is the author. Hence, on his view, while people who are not monotheists can know the principles of natural law, they will be unaware of the ultimate source of those principles. Like divine command theory, natural law theory works with a picture of God as a legislator. Both theories are thoroughly theological in their accounts of the deepest source of morality. Because I believe that the strengths and weaknesses of theological theories of morality stand out most clearly in the case of divine command theory, I shall focus on it rather than natural law theory or other rivals within monotheistic traditions.

Having now finished explaining what lies behind my decision to include only divine command theories in this essay's treatment of God and morality, I can bring my preliminary remarks to a close. The remainder of the essay is divided into three parts. In the first, I spell out in more detail a divine command theory of morality. In the second, I mobilize some reasons monotheists can offer for accepting a theory of this kind, and in the third, I develop and try to reply to some serious objections.

keep my promise. However, because it is wrong for me not to keep my promise, it is also morally obligatory for me to keep it. Moral obligation and moral wrongness are matters of duty. Doing one's moral duty consists of performing obligatory actions and not performing wrong actions. In effect, then, morality is a system of requirements, permissions, and prohibitions governing actions. This much is common ground for competing theories of morality. 1. WHAT DOES A DIVINE COMMAND THEORY CLAIM?

As it is usually understood, morality works with three main concepts; they are rightness, wrongness, and obligation. Any attempt to define all three of them in terms of the others would obviously lead to circularity. So it is best to proceed by first explaining one of them without

attempting to give a definition and then defining the other two in terms of it. I begin with rightness. Morally right actions are morally permissible; they are actions that, from the moral point of view, it is all right to perform. Using the concept of rightness, it is easy to define wrongness. Actions are morally wrong if and only if they are not morally right. Morally wrong actions may be thought of as actions that morality forbids or prohibits. Moral rightness and moral wrongness are mutually exclusive categories; no action is both right and wrong. They are also collectively exhaustive categories; every action is either right or wrong. Using the concept of wrongness thus defined, a definition of obligation is simple to state. Actions are morally obligatory if and only if not performing them is morally wrong or, alternatively, not performing them is not morally right. Morally obligatory actions may be thought of as actions that morality demands or requires. Moral obligation is commonly supposed to be a subcategory of moral rightness; some actions are right but not obligatory while others are both right and obligatory. Thus, for example, when I get up in the morning, it is morally right, that is, morally permissible, for me to put my right shoe on before my left shoe. But since it is not wrong for me to put my shoes on the other way around, it is not obligatory for me to put my right shoe on before my left shoe. By contrast, when I make a serious promise and nothing weighty interferes with my keeping it, it is morally right for me to

Different theories of morality contain different principles of requirement, permission, and prohibition. According to an act utilitarian principle of prohibition, for instance, actions are morally wrong if and only if the consequences of performing them yield less utility than the consequences of performing other actions the agent could have performed instead. The principles of a divine command theory of morality can be formulated in the following way:

(1) An action is morally right if and only if (i) God does not command that it not be performed, and (ii) if it is morally right, what makes it morally right is its not being the case that God commands that it not be performed;

(2) An action is morally wrong if and only if (i) God commands that it not be performed, and (ii) if it is morally wrong, what makes it morally wrong is God's commanding that it not be performed; and

(3) An action is morally obligatory if and only if (i) God commands that it be performed, and (ii) if it is morally obligatory, what makes it morally obligatory is God's commanding that it be performed.

These three principles make precise the idea that morality depends upon divine commands and, hence, on the underlying state of God's will that such commands express.

The radical nature of this dependency becomes apparent once it is realized that the proclamation attributed to Ivan Karamazov above is a straightforward consequence of these moral principles. According to (2), an action is morally wrong only if God commands that it not be performed. But if there is no God, there are no divine commands, and so no action is such that God commands that it not be performed. Hence, if

there is no God, no action is morally wrong. However, every action is either morally right or morally wrong. Thus, if there is no God, every action is morally right in the sense of being morally permissible. Similarly, nothing is morally obligatory if there is no God. For according to (3), an action is morally obligatory only if God commands that it be performed. But, again, if there is no God, there are no divine commands, and so no action is such that God commands that it be performed. Hence, if there is no God, no action is morally obligatory. In short, according to a divine command morality, if there is no God, no action is either morally wrong or morally obligatory. In other words, on such a view, if there is no God, there are no moral duties.

Does this alarming cluster of conclusions that follow directly from the principles of a divine command theory by itself provide a sufficient reason to reject those principles? I shall address this question when I respond to objections in the third part of the essay. Before I turn to that task, however, I am going to discuss some of the reasons monotheists can offer in favor of a divine command theory of morality.

II. WHY SHOULD A MONOTHEIST ACCEPT A DIVINE COMMAND THEORY?

As far as I can tell, there is no deductive argument that would count, even for monotheists, as a conclusive proof for the principles of divine command morality. However, there seems to be no such proof for any other moral theory. So perhaps the best that can be done to recommend any set of moral principles is to support them with a cumulative case argument. In such an argument, a conclusion is supported by several considerations, none of which alone is decisive but each of which helps to build the case. In this essay I shall present a cumulative case argument with four parts. They support divine command theory in a way analogous to that in which the legs of a chair support the weight of a seated person. No one leg supports all the weight, but each leg makes a contribution to supporting the weight. Three of the four parts of my cumulative case appeal to Christian traditions; the fourth draws on general considerations from philosophical theology that are shared by the major monotheisms. The point of setting forth the cumulative case is to show why adopting a divine command theory should be regarded as an attractive choice for people who are already Christians and a live option for other monotheists. The point is not to persuade people who are not already monotheists to become divine command theorists. If convincing people who are not monotheists to adopt divine command morality were my aim, I would have to start by trying to argue for the existence of God, and I do not have space in this essay for that project. Hence all I hope to get people who are not monotheists to see is why divine command morality would be a plausible option for them if they were monotheists. I begin with the part of the cumulative case that focuses on the morality promulgated by Jesus.

Leg 1: Commanded Christian Love.

As noted above, the New Testament makes love of the neighbor the subject of a command. Is there a reason for this? I think so. It is that the love of neighbor of which Jesus speaks is very difficult for us in our present circumstances; it does not spontaneously engage our affections. If it were merely permissible, we would not love our neighbors in the way the Gospels teach. It is therefore no accident that Jesus commands love of the neighbor and thereby makes it a matter of obligation or duty.

Soren Kierkegaard has seen very clearly just how radical the demands of love of the neighbor are. In *Works of Love*, he draws a sharp distinction between erotic love and friendship, on the one hand, and Christian love of neighbor, on the other. Erotic love and friendship play favorites; Christian love of neighbor is completely impartial. Kierkegaard insists: "The object of both erotic love and friendship has therefore also the favorite's name, the beloved, the friend, who is loved in distinction from the rest of the world. On the other hand, the Christian teaching is to love one's neighbor, to love all mankind, all men, even enemies, and not to make exceptions, neither in favoritism nor in aversion." His shocking idea is that the command to love the

neighbor places absolutely everyone, including one's beloved, one's friend, and one's very self, on the same footing as one's worst enemy or people with whom one has had no contact. Perhaps it is easy to imagine God loving all humans in this indiscriminating fashion. It is hard to imagine that we would do so unless doing so were obligatory for us, for we would surely not do so spontaneously. Therefore the impartiality of Christian love of the neighbor makes that love

the appropriate object of a divine command that imposes obligations on us.

According to Kierkegaard, there is another way in which love of the neighbor differs from erotic love and friendship. The latter two depend on characteristics of the beloved and the friend that can and often do change. If the beloved loses the traits that made him or her erotically attractive, erotic love withers and dies. If the friend who was prized for having a virtuous character turns vicious, the friendship will be (or at least should be) broken off. Love of the neighbor, however, is supposed to be invulnerable to such changes in its objects. Kierkegaard puts the point this way: "No change, however, can take your neighbor from you, for it is not your neighbor who holds you fast—it is your love which holds your neighbor fast. If your love for your neighbor remains unchanged, then your neighbor also remains unchanged just by being."² If there is to be such a love that alters not where it alteration finds, it cannot depend on changeable features of the neighbor and ways in which they engage our natural feelings and preferences. For Kierkegaard, it can have the independence it needs from such feelings and preferences only if it is obligatory, for only then can it be motivated by a stable sense of duty rather than by changeable affections.

Kierkegaard thus has at least two powerful reasons for thinking that Christian love of the neighbor must be a matter of obligation. The first is that only a love which is obligatory can be extensive enough in scope to embrace absolutely anyone without distinction. Erotic love and friendship are always discriminating and exclusive. The second reason is that only a love which is obligatory can be invulnerable to changes in its objects. Erotic love and friendship naturally and properly change in response to changes in the valued features of their objects. These reasons support the view that Christian love of the neighbor has to be a commanded love.

I think that this commanded love is foundational for Christian morality and is what sets it apart from secular rivals. The stringency of the obligation to love is apt to give offense, as Kierkegaard himself recognizes. He tries to get us to see just how demanding the obligation really is and yet to accept it as binding upon us. "Only acknowledge it," he exhorts his readers, "or if it is disturbing to you to have it put in this way, I will admit that many times it has thrust me back and that I am yet very far from the illusion that I fulfill this command, which to flesh and blood is offense, and to wisdom foolishness."³ I agree with Kierkegaard about the importance of highlighting rather than downplaying the stringency of the Christian obligation to love the neighbor even if, as a result of doing so, some people are thrust back or offended. But it seems to me that Christians who take the Gospels seriously are in no position to deny that they teach us that God has commanded us to love the neighbor or that this command places us under an obligation to do so. Hence I see in what is most distinctive of the Christian morality of love, the fact that it is commanded, a reason for Christians to favor a divine command theory of moral obligation.

Leg 2: Religious Practice.

According to an old saying, the law of prayer is the law of belief (*lex orandi, lex credendi*). We should probably regard this old saying as a rule of thumb rather than an exceptionless generalization, since popular devotion sometimes contains elements that are superstitious or even, as in the case of some cults, wicked. Yet often enough in Christianity, what is professed in religious practice is a good guide to what ought to be affirmed in sound theological theory. It is clear that the practice of Christian spirituality strongly emphasizes the theme of conforming one's own will to the will of God.

Janine M. Idziak has assembled numerous examples of this theme from Christian devotional sources.⁴ It is found in traditional hymns such as the following: "Father, who didst

fashion man/

Godlike in thy loving plan/ Fill us with that love divine/ And conform our wills to thine." It is also found in books of worship such as the Presbyterian Daily Prayer: "Eternal God, send your Holy Spirit into our hearts, to direct and rule us according to your will... ", and "God of love, as you have given your life to us, so may we live according to your holy will revealed in Jesus Christ. .. " These examples, and others like them, indicate that conformity with God's will is an idea deeply embedded in Christian religious practice. Divine command principles reflect this theme at the level of moral theory. There seems to be nothing superstitious or otherwise amiss with this aspect of Christian devotional practice. Hence I think it provides some support for divine command theory in accord with the rule of *lex orandi, lex credendi*. In other words, the fact that conformity with the will of God is an important theme in Christian liturgical practices is a reason for Christians to adopt a moral theory in which divine commands that express God's will are the source of moral obligations.

I am not an expert on the religious practices of Judaism and Islam. However, I do know that traditional Judaism stresses obedience to the commands of Yahweh expressed in the Hebrew Bible. And I am also aware that Islam insists on submission to the will of Allah; indeed, the word "Islam" itself means submission (to Allah's will). So I think it safe to conjecture that Jews and Muslims have available to them arguments parallel to the argument I have just given for the case of Christianity. If this conjecture is correct, arguments of this sort will have some appeal not just for Christians but also for adherents of the other two major monotheisms.

Leg 3: The Immoralities of the Patriarchs.

A Christian tradition of interpreting some stories in the Hebrew Bible serves as the basis for an argument to the conclusion that the moral status of actions depends on divine commands. These stories recount the incidents sometimes described as the immoralities of the patriarchs. They are cases in which God commands something that appears to be wicked and, indeed, to violate a prohibition laid down in the Decalogue. Three such cases come up over and over again in Christian traditions of biblical commentary. The first is the case known as the *akedah*, the binding of Isaac, which involved a divine command to Abraham, recorded at Genesis 22:1-2, to offer his son Isaac as a sacrifice. The second is the divine command reported at Exodus 11:2, which was taken to be a command that the Israelites plunder the Egyptians. And the third is the divine command to the prophet Hosea, stated first at Hosea 1:2 and then repeated at Hosea 3:1, to have sexual relations with an adulteress. According to these stories, then, God has apparently commanded homicide, theft, and adultery (or at least fornication) in particular cases. What are we to make of these biblical tales?

The tradition of scriptural interpretation I am going to discuss takes the stories to be literally true; it supposes that God actually did issue the commands reported in the stories. It also assumes that these commands were binding on those to whom they were addressed. In his *City of God*, St. Augustine uses the *akedah* to make the point that the divine law prohibiting killing allows exceptions, "when God authorizes killing by a general law or when He gives an explicit commission to an individual for a limited time." Abraham, he says, "was not only free from the guilt of criminal cruelty, but even commended for his piety, when he consented to sacrifice his son, not, indeed, with criminal intent but in obedience to God" (*City of God* 1, 21). Augustine thinks God explicitly commissioned Abraham to kill Isaac and then revoked the commission just before the killing was to have taken place. It is clear that Augustine believes Abraham acted as he should in consenting to kill Isaac precisely because the killing had been commanded by God. He also believes that Abraham's consent, which would have been wrong in the absence of the

command, was not wrong given its presence. In other words, the divine command alone determined the moral status of Abraham's consent.

St. Thomas Aquinas shares this view. He treats the three famous cases in the following passage:

Consequently when the children of Israel, by God's command, took away the spoils of the Egyptians, this was not theft; since it was due to

them by the sentence of God.-Likewise when Abraham consented to slay his son, he did not consent to murder, because his son was due to be slain by the command of God, Who is Lord of life and death; for He it is Who inflicts the punishment of death on all men, both godly and ungodly, on account of the sin of our first parent, and if a man be the executor of that sentence by Divine authority, he will be no murderer any more than God would be.-Again, Osee, by taking unto himself a wife of fornications, or an adulterous woman, was not guilty either of adultery or of fornication: because he took unto himself one who was his by command of God, Who is the author of the institution of marriage. (*Summa Theologiae* I-II, 100, 8)

In this passage, Aquinas reasons in the following way. Because God commanded the Israelites to plunder the Egyptians, what the Israelites took on their exit from Egypt was due to them. Since theft involves taking what is not one's due, the plunder of the Egyptians was not theft. Similarly, because God, who is lord of life and death, commanded Abraham to slay Isaac, Isaac was due to receive the punishment of death all humans deserve in consequence of Adam's original sin. Since murder involves slaying someone who is not due to be slain, Abraham's consent to the slaying of Isaac was not consent to murder. And because God, who is the author of marriage, commanded Hosea to take the adulteress as his wife, she was his wife, and so he was guilty of neither adultery nor fornication in having intercourse with her. For Aquinas, therefore, the action of the Israelites was, as a result of the divine command, not really theft and so was not wrong. Similarly, because of the divine command, Abraham's consent was not consent to murder and thus was not wrong. And, on account of the divine command, Hosea's sexual intercourse was neither adultery nor fornication and hence was not wrong. In all three cases, the divine commands determined the moral status of actions; they transformed actions that otherwise would have been wrong into actions that were not wrong.

It should be emphasized that learning from Augustine and Aquinas need not be restricted to Christians who share their belief that the divine commands recounted in the biblical stories actually occurred. Some Christians may treat one or more of these cases as hypothetical rather than actual but agree with the two saints that divine commands would, if they were issued, make precisely the moral difference the saints say they actually did make. I think there would be enough agreement among Christians about these and other actual and hypothetical cases to make it reasonable to claim that Christian moral intuitions support the conclusion that God's commands determine the moral status of actions in particular cases. It also seems to me reasonable to generalize inductively from such particular cases. Hence I conclude that moral intuitions underlying the tradition of biblical interpretation to which the two saints belong provide some support for the view that the moral status of any human action or omission depends on whether it is divinely commanded or not.

I cannot speak with authority about how the traditions of interpretation in Judaism and Islam consider it best to treat the incidents in the Hebrew Bible known as the immoralities of the patriarchs. It does seem to me, however, that Jews and Muslims could, if they wished to do so, employ the strategy of interpretation used by Augustine and Aquinas. If they do so, they will be in a position to use biblical cases to support the conclusion that the commands of Yahweh or

Allah determine moral status.

Leg 4: Divine Sovereignty.

According to the doctrine of divine sovereignty, God is sovereign lord of the universe in the sense that things other than God depend on and are under the control of God. There are several reasons why monotheists of all stripes Jews, Christians, and Muslims want to include a strong doctrine of divine sovereignty in their philosophical theology. Two of the most important pertain to creation and providence. Monotheists customarily wish to insist on a sharp distinction between God and the created world. Traditional accounts of divine creation and conservation assert that each contingent thing, which is to say each thing that might not have existed, depends on God's

power for its existence whenever it exists. God, by contrast, depends on nothing outside Godself for existence. So God has complete sovereignty over the realm of contingent existence. Monotheists also usually wish to maintain that we can trust God's promises about the future and our salvation without any reservations. Even if God does not control the finest details of history because of a prior decision to create a world in which there is real indeterminism at the quantum level or libertarian free will, God has the power to ensure that the created universe will serve divine purposes for it and all its inhabitants in the long run. So God also has extensive providential sovereignty over the realm of contingent events. Our philosophical theology will have greater theoretical unity if we extend divine sovereignty from the realm of contingent existence and events to the domain of morality. Doing so will also yield a philosophical theology that is simple. Because theoretical unity and simplicity are important virtues in any theory, we want them in our philosophical theology if we can manage to get them. Adopting divine command morality would extend divine sovereignty to cover the whole domain of morality; it would give us the theoretical unity and simplicity we seek. Hence we should adopt divine command morality because doing so increases the theoretical unity and simplicity of our philosophical theology.

I think the strength of the cumulative case for divine command theory I have outlined derives in part from the diversity of sources to which it appeals. The moral demands set forth by Jesus in the Gospels, considerations drawn from sound religious practice, commentary by two saints on incidents portrayed in the Hebrew Bible, and theoretical virtues from philosophical theology all converge in supporting the adoption of divine command theory. No doubt there are other considerations within the traditions of the major monotheisms that could be added to my cumulative case, but I cannot discuss them within the limits of this essay. So I must be content to hope that the four legs of my cumulative case support its conclusion to the same extent the four legs of my office chair support my weight.

III. HOW CAN A DIVINE COMMAND THEORY BE DEFENDED?

There are many objections to divine command theory. In this respect, it is neither in better shape nor in worse shape than any other moral theory. The important question for any moral theory is how well it can be defended against the objections to it. I do not have space in this essay to consider all the objections to divine command theory, and so I must confine my discussion to the objections that my experience leads me believe many people find particularly troublesome. Since I have presented four arguments in support of divine command theory, it seems only fair for me to respond to an equal number of objections that are meant to undermine it. I shall argue that divine command morality can be successfully defended against all four of the objections I raise. Think of each of the objections as an arrow intended to deliver a mortal

wound to divine command morality. I shall try to show that none of them is a killing shot and that, taken together, they fall short of being lethal.

Arrow 1: The Karamazov Objection.

I return now to a worry I had earlier set aside. According to the theory I have formulated, if there is no God, no actions are wrong and none are obligatory. Ivan Karamazov's claim that everything is permitted or, better, is permissible is, therefore, a consequence of the theory. But why exactly is that objectionable? Perhaps it is supposed to be because Ivan's claim can be used as a premise in the following argument:

(4) If there is no God, everything is permissible.

(5) There is no God.

(6) So everything is permissible.

It is obvious that this argument is logically valid; its conclusion follows from its premises by modus ponens. One would hope that all decent people, whether they are monotheists or atheists, will reject its conclusion. Surely, they will insist, torturing innocent children just for one's own amusement is not morally permissible. So let us assume monotheists and atheists agree that (6) is false. Having rejected (6), they must then reject at

least one of the argument's premises in order to remain consistent. Because atheists think that (5) is true, they will reject (4) and the principles of divine command theory of which it is a consequence. But monotheists can consistently accept (4) while rejecting (6) because they think (5) is false. In other words, given that (6) is false, the issue boils down to whether (5) is true and (4) is false, as the atheist holds, or (5) is false and (4) is true, as the monotheist who is a divine command theorist maintains. Without a proof of the existence of God, the divine command theorist is not in a position to show conclusively that (5) is false and the atheist is mistaken. But, equally, without a proof of the nonexistence of God, the atheist is not in a position to show conclusively that (5) is true and the divine command theorist is mistaken. It is generally agreed that none of the known arguments for or against the existence of God amounts to a proof. That being so, not being backed up by a proof of the nonexistence of God, this objection by itself does not yield a refutation of divine command theory.

Arrow 2: The Moral Skepticism Objection.

It is sometimes thought that divine command theory implies moral skepticism. An argument for this view might take the following form. According to divine command theory, we can come to know what is morally obligatory or wrong only by first coming to know what God has commanded. Hence only people who have religious knowledge can have moral knowledge. But no one actually has religious knowledge of what God has commanded. As Eric D'Arcy notes, "if immoral actions are immoral merely because God so wills it, merely because God legislates against them, it would be sheer coincidence if someone who knew nothing of God or his law happened to adopt the same views about particular actions as God did.", " Mere coincidence of our views with God's views, however, would not give us religious knowledge of God's views, though it would yield true beliefs about them, because true beliefs are not sufficient for knowledge. Thus we could not derive moral knowledge from such true beliefs about God's views. And the best we can hope for when the subject is God's views is true beliefs. Even if some religious people have them, this is a matter of faith rather than knowledge. In sum, for divine command theory, the only route we have to moral knowledge is through religious knowledge of God's commands, and this route is blocked because our only access to God's commands is through faith which, while it may yield true beliefs about divine commands, is bound to fall short of producing knowledge.

One way the divine command theorist can reply to this objection is simply to assert that scripture, religious traditions, and personal religious experience can be sources of knowledge about what God commands. Though I tend to think this is true, I do not find it a convincing response. The objector can easily cast doubt on it by pointing to the sharp disagreement among religious people themselves about what those sources deliver. They quarrel about how to interpret scripture, which of the competing religious traditions preserves genuine revelation from God, and whose religious experiences are veridical.* Can such sources yield knowledge when they give rise to controversy of this sort? There is, however, a better response available to the divine command theorist. The theory asserts that God's commands make it the case that certain actions are morally obligatory and others are wrong. It makes no epistemological claims, and, in particular, it makes no claims about how we might come to know what God has commanded. It does not imply that we can come to know what is morally obligatory or wrong only by first coming to know what God commands. In other words, the subject matter of divine command theory is a certain kind of metaphysical dependency of morality on God's commands. But the order of epistemological access to things can be the reverse of the order of metaphysical dependency. Causation provides an example from ordinary life. Though effects are metaphysically dependent on their causes, we often come to know causes by first coming to know their effects. So it is not a consequence of divine command theory that only people who have religious knowledge can have moral knowledge; the divine command theorist can consistently deny that our only route to moral knowledge is through religious knowledge. Therefore, the objection fails.

Indeed, the divine command theorist could consistently hold that we can only come to know what God's commands are by first coming to know what is morally obligatory or wrong. Jeremy Bentham, who was a utilitarian, once expressed a view of this kind. He said: "We may be perfectly sure, indeed, that whatever is right is conformable to the will of God: but so far is that from answering the purpose of showing us what is right, that it is necessary to know first whether a thing is right, in order to know from thence whether it be conformable to the will of God."⁶ As this remark suggests, Bentham entirely thought that a moral theory would be useless unless it answered to the purpose of showing us what is right. It must be granted to Bentham that divine command theory does not answer to the purpose of showing us what is morally obligatory, permissible, and wrong if we can only come to know what God's commands are by first coming to know what is morally obligatory, permissible, and wrong. In that case, divine command theory would not provide us with a decision procedure for morality, a way of deciding or determining the moral status of an action. But so what? It is not obvious that failure to provide a decision procedure is a fatal flaw in a moral theory. Presumably it would be of theoretical interest to learn that what is morally obligatory, permissible, and wrong depends on God's commands, even if this knowledge were by itself of no practical use. In fact, it seems to be the case that Bentham's own utilitarianism runs into a similar difficulty. No one is in a position to calculate and assign numeral utility values to all the consequences of all the alternative actions open to the agent in many circumstances in which moral decisions must be made. When this is pointed out to utilitarians, some of them respond that it would be of theoretical interest to learn that utilitarianism is true, even if applying it to get solutions to urgent moral problems is often not a practical possibility. It would hardly be fair for utilitarians who use this response to defend their theory to object if divine command theorists say similar things in defense of their theory.

Arrow 3: The Divisiveness Objection.

Another objection to divine command theory is that it is bound to be a divisive position.

William K. Frankena develops the idea this way:

However deep and sincere one's own religious beliefs may be, if one reviews the religious scene, one cannot help but wonder if there is any rational and objective method of establishing any religious belief against the proponents of other religions or of irreligion. But then one is impelled to wonder also if there is anything to be gained by insisting that all ethical principles are or must be logically grounded on religious beliefs. For to insist on this is to introduce into the foundation of any morality whatsoever all of the difficulties involved in the adjudication of religious controversies, and to do so is hardly to encourage hope that mankind can reach, by peaceful and rational means, some desirable kind of agreement on moral and political principles.⁷

Though Frankena is in these remarks discussing views in which the relation between religion and morality is supposed to be a matter of logic, presumably he would have a similar worry about our divine command theory in which the relation is metaphysical. And, of course, Frankena is quite correct in pointing out that religious disagreement has in the past given rise to sharp moral disagreement and continues to do so in our own times. Still, there are three things worth saying in response to his worry.

First, religious disagreement does not inevitably lead to disagreement about moral principles. A divine command theorist can agree with a Kantian moral theorist who is not religious on the principle that torturing the innocent is always morally wrong. They will, to be sure, disagree about why torture of the innocent is always wrong. A divine command theorist will say that it is wrong because God has commanded that no one ever torture an innocent person. A secular Kantian may say that it is wrong because, involving as it does a failure to treat humanity in another person as an end in itself, it violates the categorical imperative. Disagreement at the deepest level of moral theory is

therefore consistent with agreement at the level of moral principles. So despite religious disagreement, there are grounds for hope that we can reach, by peaceful and rational means, an overlapping consensus on at least some moral and political principles.

Second, not all moral disagreement is divisive. A Kierkegaardian Christian may think that Mother Teresa was only doing her duty toward her neighbor as specified by the Love Commandment in the Gospels, when she devoted herself to caring for wretched people in India, and regret the failure of the rest of us to satisfy her high standard of duty. One of her secular admirers may believe that much of the good she did was supererogatory, that is, above and beyond the call of duty. But if they agree that she did a great deal of good for others and that the earth would be better off if it had on it more people like her in this respect, their disagreement about whether some of her good works were obligatory or supererogatory is not apt to be especially divisive.

Yet, third, in spite of the fact that disagreement about religion is likely to lead to less moral disagreement than one might initially have imagined, it seems utterly unrealistic to expect agreement on all matters of moral and political principle as long as disagreement in moral theory persists. However, as Robert M. Adams has pointed out, nothing in the history of modern secular moral theory gives us reason to expect that general agreement on a single comprehensive moral theory will ever be achieved or that, if achieved, it would long endure in a climate of free inquiry. As any student who has taken a course in moral philosophy can testify, it is a subject chock full of combat between rival moral theories. The conclusion Adams draws, with which I agree, is that "the development and advocacy of a religious ethical theory, therefore, does not destroy a realistic possibility of agreement that would otherwise exist." In other words, if those

who accept divine command theory advocate it, they will not make the situation of disagreement worse. Moreover, if they refrain from advocating it, they will forfeit an opportunity to make the situation better. For if divine command theory is not advocated, it will not be subject to testing by public critical scrutiny in the marketplace of ideas. And if it is not tested in such debates, we will never discover whether there are reasons for rejecting it or grounds for accepting it above and beyond those we already have. So if divine command theory is not advocated, we will never get any closer than we are now to knowing whether or not it is true. But if it is advocated, there is at least a chance that we will, as a result of public debate, come closer to knowing whether or not it is true. Hence if those who accept divine command theory advocate it, we will not be made intellectually worse off and we may become intellectually better off. Therefore, even if it is granted, as I think it should be, that divine command theory is, to some extent, a divisive point of view, there are still good reasons of a practical sort to favor its advocacy and development. And it is worth noting that, despite his worry about the divisiveness of linking morality to religion, Frankena himself acknowledges that if the view that morality is dependent on religion rests on good grounds, we must accept it.⁹

Arrow 4: The Euthyphro Objection.

The most powerful objection to divine command theory is often traced back to classical antiquity. In the dialogue *Euthyphro*, Plato has Socrates ask Euthyphro to consider the following question. "Is what is pious loved by the gods because it is pious, or is it pious because it is loved" (*Euthyphro* 10a)? Some of the discussion in the dialogue turns on special features of the polytheism of Greek popular religion. For example, Socrates suggests that the gods might disagree about piety, some of them loving it while others hate it, and he persuades Euthyphro that perhaps in that case there would be things that are both pious and impious. What Socrates suggests does seem to be a real possibility for the quarrelsome gods portrayed in the epic poetry of Homer, but it obviously is not a possibility for monotheists. So the question needs to be rephrased if it is to be addressed to monotheists.

A question monotheists who believe that God does issue commands must confront is this: Are actions commanded by God because they are obligatory, or are actions obligatory because they are commanded by God? And there is, of course,

a similar question about wrongness and being contrary to the commands of God. Such questions seem to impale divine command theorists on the horns of a dilemma. On the one hand, if actions are commanded by God because they are obligatory, then such actions are obligatory prior to and independent of being divinely commanded. But divine command theorists cannot accept the view that actions are obligatory independent of being divinely commanded. It is not consistent with their view that divine commands make actions obligatory; actions that are made obligatory by divine commands are not obligatory independent of those commands. It also undercuts one of the legs in the cumulative case for divine command theory, since actions that are obligatory independent of God's commands are not actions over whose moral status God has sovereignty. On the other hand, however, if actions are obligatory because they are commanded by God, then it at any rate seems that obligation is completely arbitrary, because God could, just by commanding it, make any action whatsoever obligatory and, hence, no matter how horrendous an action might be, it would be obligatory if God were to command it. In the seventeenth century, Ralph Cudworth pressed this objection to divine command morality in particularly vivid and forceful language. He wrote:

divers Modern Theologians do not only seriously, but zealously contend That there is nothing Absolutely, Intrinsically, and Naturalh, Good and Evil, Just and Unjust, antecedently to

any oppressive command of God; but that the Arbitrary Will and Pleasure of God, (that is, an Omnipotent Being devoid of all Essential and Natural Justice) Whence it follows unavoidably that nothing can be imagined so grossly wicked, or so foully unjust or dishonest, but if it were supposed to be commanded by this Omnipotent Deity, must needs upon that Hypothesis forthwith become Holy, Just and

Does the divine command theorist have anything to say in response to Cudworth's stinging indictment?

In order to address this question, I must introduce a new idea into the discussion. Up to this point, I have been working exclusively with the moral categories of rightness, wrongness, and obligation, but now I want to bring onto the scene another pair of ethical categories, goodness and badness. Monotheists have traditionally held that God is perfectly good. Putting this point in a way Plato might find congenial, God is the Good itself, and creatures are good only in virtue of resembling God in some respect. In the account of creation in Genesis 1, humans are said to have been made in the image and likeness of God. Monotheists might generalize from this story and say that creatures resemble God by bearing the relation of imaging to God. It is worth noting that this view does not make goodness independent of God and thus does not compromise the doctrine of divine sovereignty. After all, if God does not exist, then, on this view, the Good itself, the paradigm of goodness, does not exist either, and so nothing other than God is good because nothing bears the relation of imaging to a paradigm that does not exist. The divine command theorist can use this view of divine goodness as the basis of a reply to Cudworth.

Consider some state of affairs we are certain is foully unjust, say, an innocent child being tortured to death. Cudworth's complaint is that divine command theory has as a consequence the following conditional or hypothetical statement:

(7) If God commands someone to torture an innocent child to death, then it is morally obligatory for that person to torture the child to death.

And Cudworth is correct about this point because (7) does follow from (3). However, a refutation of divine command theory can be derived from this point only if it can be shown that (7) is false, and the divine command theorist is in a position to argue that (7) is, in fact, true. Since God is the Good itself, divine goodness constrains what God commands or, indeed, even could command. God never commands anyone to torture an innocent child to death, and so the antecedent of (7) is false. But according to elementary logic books, conditionals with false antecedents are themselves true. Hence, by the divine command theorist's lights, (7) is true. In short, God's commands are not arbitrary. So

the fact that (7) follows from divine command theory is not really a problem because it is open to the divine command theorists to grant that (7) is true.

Can this reply to Cudworth be generalized from the example of torturing an innocent child to death, and others like it, to cover all cases, 'Maybe not. Monotheists typically hold that God is a transcendent being. God's infinite goodness is not exactly the same as finite human goodness; they are, it is sometimes said, only analogous. God's goodness is therefore, at least to some extent, beyond our ken; we cannot completely grasp it; it is bound to remain, in some ways, incomprehensible to us. This does not mean that we could or should be prepared to accept as good a set of alleged divine commands that is totally contrary to our human ideas of goodness. It does, however, leave room for the possibility that there are a few divine commands that violate our assumptions about goodness. In order to face up to this possibility, let us return to the biblical story of the akedah.

In order to get a grip on what this story might mean for us, Robert M. Adams asks us to imagine a modern Abraham who at first finds overwhelmingly plausible all three of the following claims:

(8) If God commands me to do something, it is not morally wrong for me to do it.

(9) God commands me to kill my son.

(10) It is morally wrong for me to kill my son. t t

Since the negation of (10) follows by modus ponens from (8) and (9), these claims are inconsistent, and Adams stipulates that his Abraham recognizes their mutual inconsistency. The question then becomes which of (8)-(10) it would be best for Abraham to reject. It would not be easy for a divine command theorist to endorse rejecting (8). By (3), if God commands Abraham to kill his son, it is obligatory for him to do it. Given the supposition, mentioned above, that obligation is a subdomain of rightness, if it is obligatory for Abraham to kill his son, it is right and hence not wrong for him to do it. And so, by the logical law known as the transitivity of implication, if God commands Abraham to kill his son, it is not wrong for him to do it. Thus Abraham's choice boils down to rejecting (9) or rejecting (10). Confronted with this choice, Abraham gets conflicting advice from two great modern philosophers.

Kant's advice is to reject (9), and Adams favors this option. In a famous passage in *The Conflict of the Faculties*, he tells Abraham precisely what he ought to do. Kant writes: "Abraham should have replied to this supposedly divine voice: 'That I ought not to kill my good son is quite certain. But that you, this apparition, are God-of that I am not certain, and never can be, not even if this voice rings down to me from (visible) heaven.'" ¹² Perhaps the plausibility of Kant's position can be made clearer with the help of a thought experiment. Imagine you have just moved into a new house and, looking out the kitchen window, you spot your next door neighbor building a stone altar in his back yard. When you ask what it is for, he tells you he has been commanded by God to sacrifice his son, and he cordially invites you to drop by in the morning and take part in the ceremony. Surely your first reaction would be to think that your new neighbor ought to be in a mental hospital. Yet, though I acknowledge the force of such considerations, I do not believe they are decisive. If I did, my earlier argument that incidents resembling the akedah can be part of a cumulative case for divine command theory would be seriously undermined. But I do not believe that it is undermined, because I think Kant's claim that Abraham could never be certain that God had commanded him to kill his son can be successfully challenged. According to monotheists, God is, as Cudworth mentioned, omnipotent. It is therefore within God's power to give Abraham a sign that would make him certain that he has been commanded to kill his son. Suppose, for example, that one night, in the twinkling of an eye, the stars in the sky are rearranged to spell out the sentence "ABRAHAM, SACRIFICE ISAAC!" Abraham observes this transformation of the heavens. Observers all over the world, some of whom do not even know English, testify that they now see this pattern in the night sky, and Abraham learns of this testimony and uses it to rule out the possibility that he is hallucinating. Being a modern person, he reasons that

the stellar rearrangement he observed could not have occurred without many of the stars achieving velocities in excess of the speed of light and thereby miraculously violating a law of physics. In such circumstances, it seems to me, Abraham would be crazy not to believe that he had been divinely commanded to kill his son and would be certain if he believed it.

In a case of this sort, I think Abraham's best bet would be to reject (10) and to suppose that what Kierkegaard calls a teleological suspension of the ethical occurs. In *Fear and Trembling*, which he published under the pseudonym of Johannes de Silentio, Kierkegaard

concludes that "the story of Abraham contains therefore a teleological suspension of the ethical."¹³ It is a suspension of the ethical or, in the idiom of this essay, a suspension of the moral because God exempts Abraham from a moral principle that would otherwise be binding on him. In the circumstances, therefore, it is not wrong for Abraham to kill his son. The suspension is teleological because God suspends the moral in order to achieve a special goal (telos). According to IGerkegaard, God's goal in the akedah is to subject Abraham to a severe test of the depths of his faith, a test which Abraham passes. It is worth pointing out that the teleological suspension of the ethical plays the same role in Kierkegaard's thought about Abraham that the notion of a commission from God to an individual for a limited time plays in Augustine's thought and that the concept of being an executor of a death sentence by divine authority plays in Aquinas' thought. In all three cases, the general idea is that God can, in particular instances, create exceptions to or exemptions from moral principles that would otherwise be in force. I think divine command theorists ought to allow for the possibility of such divinely mandated exceptions or exemptions. If they do, they will be in a position to use the immoralities of the patriarchs as part of a cumulative case for divine command theory.

It does not follow from this view that divine command theorists must concede to Cudworth or, more generally, to the Euthyphro objection that God's commands are or could be completely arbitrary. So a divine command theorist can respond to the charge of arbitrariness by saying that actions are obligatory because God commands them and yet God's commands are not and could not be completely arbitrary because they are constrained by God's goodness. What must be conceded is that God's commands need not always conform to our ideas of goodness. I reckon that it is safe enough for monotheists to make this concession. To demand that God conform to our ideas would be to make our ideas rather than their transcendent object an absolute, and monotheists will rightly fear that absolutizing anything finite, including our ideas, would be a form of idolatry.

But divine command theorists must concede something to Cudworth. According to his complaint, divine command theory has among its consequences another conditional or hypothetical statement that is every bit as unattractive as (7). It is this:

(11) If God commands Abraham to kill his son, then it is morally obligatory for Abraham to kill his son.

And Cudworth is right on this point too because (11) does follow from (3). If divine command theorists do not imitate Kant in rejecting (9), they will be committed to holding that the antecedent of (11) is true. According to the logic books, however, the only way for (11) as a whole to be true, as the divine command theorists must insist that it is, when its antecedent is true, is for its consequent also to be true. So a Kierkegaardian divine command theorist is committed to holding that it is morally obligatory for Abraham to kill his son. Having rejected (10), the Kierkegaardian divine command theorist can consistently maintain that it is morally obligatory, and hence morally right and so not morally wrong, for Abraham to kill his son. People like Cudworth are sure to think such claims outrageously false. At this point, the IGerkegaardian divine command theorist has no choice except to bite the bullet and disagree with such people. It seems to me there is nothing amiss if the Kierkegaardian divine command theorist insists that they are true.

Having shown that divine command theory is not refuted by any one of the four objections

I have considered, let me conclude by asking whether, taken together, they add up to much of a cumulative case against it. In other words, given that none of the individual arrows

directed against divine command theory delivers a mortal wound, how badly is it wounded, if at all, by all of them together? In my opinion, the second and third arrows simply miss the mark. Because the divine command theory I have formulated makes no epistemological claims, it has no epistemological consequences, and so it cannot be faulted for having false or unwarranted epistemic implications. And one cannot view the fact that there will be disagreement about it as a good reason to reject it unless one is also prepared in fairness to regard disagreement as a good reason to reject all known philosophical theories in morality, in ethics more generally and in politics, not to mention all known theories in a host of other areas of philosophy. However, I do admit that the first and fourth arrows hit their target, though I do not think that, either separately or together, they do lethal damage. The existence of evil, after all, does count to some extent, but not decisively, as evidence against monotheism, and so, for those who deny that everything is permissible, it provides a reason, though not, it seems to me, a conclusive reason, for accepting the antecedent of (4) and hence rejecting (4) and the principles of divine command theory of which it is a consequence. And while I think a teleological suspension of the ethical is possible and may even have occurred on a few occasions, I recognize that many people will find the claim that Abraham is or even could be under a moral obligation to kill his son, and similar claims in other cases, intuitively very implausible. So I am certainly prepared to allow that there is a cumulative case against divine command theory that has some real force.

After being examined, then, divine command theory winds up with both pluses and minuses on its score card. Monotheists can support it with a cumulative case argument, but there are also considerations adding up to a cumulative case argument that goes some way toward undermining it. Neither argument comes anywhere close to being a definitive proof of the sort one discovers in logic books. In this respect, divine command theory is just like all the other moral theories currently debated in philosophy. Each of them is such that there is no knock-down, drag-out argument for it and also no such argument against it. In a way, this is a frustrating situation; in another way, it is challenging. There is still an opportunity, which will excite people who enjoy doing philosophy, to join the search for arguments for or against moral theories that are stronger and more conclusive than any yet known to us. Perhaps this essay will stimulate some of its readers to take advantage of that opportunity.¹⁴

NOTES

1. Soren Kierkegaard, *Works of Love*. Trans. H. V. Hong and E. H. Hong (New York: Harper, 1964), p. 36.
2. *Ibid.*, p. 76.
3. *Ibid.*, p. 71.
4. Janine M. Idziak, "Divine Command Ethics," *A Companion to Philosophy of Religion*. Ed. P. L. Quinn and C. Taliaferro (Oxford: Blackwell, 1997), pp. 453-459. The two examples I quote come from p. 457.
5. Eric D'Arcy, "Worthy of Worship: A Catholic Contribution," *Religion and Morality*. Ed. G. Outka and J. P. Reeder, Jr. (Garden City, NY: Anchor, 1973), p. 194.
6. Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation* (New York: Hafner, 1948), p. 22.
7. William K. Frankena, "Is Morality Logically Dependent on Religion?" *Religion and Morality*. Ed. G. Outka and J. P. Reeder, Jr. (Garden City, NY: Anchor, 1973), p. 313.
8. Robert M. Adams, "Religious Ethics in a Pluralistic Society," *Prospects for a Common Morality*. Ed. G. Outka and J. P. Reeder, Jr. (Princeton, NJ: Princeton University Press, 1993), p. 91.

9. Frankena, *op. cit.*, p. 314.
10. Ralph Cudworth, *A Treatise Concerning Eternal and Immutable Morality* (New York: Garland, 1976), pp. 9-10.
11. Robert M. Adams, *Finite and Infinite Goods: A Framework for Ethics* (New York and Oxford: Oxford University Press, 1999), p. 280. I have renumbered Adams' sentences.
12. Immanuel Kant, *The Conflict of the Faculties*. Trans. M. J. Gregor and R. Anchor, in Kant, *Religion and Rational Theology*, ed. A. W. Wood and G. di Giovanni (Cambridge: Cambridge University Press, 1996), p. 283.
13. Soren Kierkegaard, *Fear and Trembling*, in Kierkegaard, *Fear and Trembling and the Sickness unto Death*. Trans. W. Lowrie (Princeton, NJ: Princeton University Press, 1968), p. 77.
14. Some of the material in this essay is discussed in greater technical detail in Philip L. Quinn, "Divine Command Theory," *The Blackwell Guide to Ethical Theory*. Ed. H. LaFollette (Oxford: Blackwell, 2000), pp. 53-73.

Utilitarianism

JOHN STUART MILL

John Stuart Mill (1806-1873) was one of the leading British moral philosophers of the nineteenth century. He also wrote important works on logic, economics, education, and feminism, and served for a time as a Member of Parliament.

From J. S. Mill, *Utilitarianism*, Chaps. 1 and 2. First published in 1863.

1. GENERAL REMARKS

There are few circumstances, among those which make up the present condition of human knowledge, more unlike what might have been expected, or more significant of the backward state in which speculation on the most important subjects still lingers, than the little progress which has been made in the decision of the controversy respecting the criterion of right and wrong. From the dawn of philosophy, the question concerning the summum bonum or, what is the same thing, concerning the foundation of morality, has been accounted the main problem in speculative thought, has occupied the most gifted intellects and divided them into sects and schools, carrying on a vigorous warfare against one another. And, after more than two thousand years, the same discussions continue, philosophers are still ranged under the same contending banners, and neither thinkers nor mankind at large seem nearer to being unanimous on the subject than when the youth Socrates listened to the old Protagoras, and asserted (if Plato's dialogue be grounded on a real conversation) the theory of utilitarianism against the popular morality of the so-called Sophist.

It is true that similar confusion and uncertainty, and in some cases similar discordance, exist respecting the first principles of all the sciences, not excepting that which is deemed the most certain of them-mathematics-without much impairing, generally indeed without impairing at all, the trustworthiness of the conclusions of those sciences. An apparent anomaly, the explanation of which is that the detailed doctrines of a science are not usually deduced from, nor depend for their evidence upon, what are called its first principles. Were it not so, there would be no science more precarious, or whose conclusions were more insufficiently made out, than

algebra, which derives none of its certainty from what are commonly taught to learners as its elements, since these, as laid down by some of its most eminent teachers, are as full of fictions as English law, and of mysteries as theology. The truths which are ultimately accepted as the first principles of a science are really the last results of metaphysical analysis practiced on the elementary notions with which the science is conversant, and their relation to the science is not that of foundations to an edifice, but of roots to a tree, which may perform their office equally well though they be never dug down to and exposed to light. But though, in science the particular truths precede the general theory, the contrary might be expected to be the case with a practical art, such as morals or legislation. All action is for the sake of some end; and rules of action, it seems natural to suppose, must take their whole character and color from the end to which they are subservient. When we engage in a pursuit, a clear and precise conception of what we are pursuing would seem to be the first thing we need, instead of the last we are to look forward to. A test of right and wrong must be the means, one would think, of ascertaining what is right or wrong, and not a consequence of having already ascertained it.

The difficulty is not avoided by having recourse to the popular theory of a natural faculty, a sense or instinct, informing us of right and wrong. For, besides that the existence of such a moral instinct is itself one of the matters in dispute, those believers in it who have any pretensions to philosophy have been obliged to abandon the idea that it discerns what is right or wrong in the particular case in hand, as our other senses discern the sight or sound actually present. Our moral faculty, according to all those of its interpreters who are entitled to the name of thinkers, supplies us only with the general principles of moral judgments; it is a branch of our reason, not of our sensitive faculty, and must be looked to for the abstract doctrines of morality, not for perception of it in the concrete. The intuitive, no less than what may be termed the inductive, school of ethics, insists on the necessity of general laws. They both agree that the morality of an individual action is not a question of direct perception, but of the application of a law to an individual case. They recognize also, to a great extent, the same moral laws, but differ as to their evidence, and the source from which they derive their authority. According to the one opinion, the principles of morals are evident a priori, requiring nothing to command assent, except that the meaning of the terms be understood. According to the other doctrine, right and wrong, as well as truth and falsehood, are questions of observation and experience. But both hold equally that morality must be deduced from principles, and the intuitive school affirm, as strongly as the inductive, that there is a science of morals. Yet they seldom attempt to make out a list of the a priori principles which are to serve as the premises of the science; still more rarely

do they make any effort to reduce those various principles to one first principle, or common ground of obligation. They either assume the ordinary precepts of morals as of a priori authority, or they lay down as the common groundwork of those maxims some generality much less obviously authoritative than the maxims themselves, and which has never succeeded in gaining popular acceptance. Yet, to support their pretensions, there ought either to be some one fundamental principle or law at the root of all morality, or, if there be several, there should be a determinate order of precedence among them, and the one principle, or the rule for deciding between the various principles when they conflict, ought to be self-evident.

To inquire how far the bad effects of this deficiency have been mitigated in practice, or to what extent the moral beliefs of mankind have been vitiated or made uncertain by the absence of any distinct recognition of an ultimate standard, would imply a complete survey and criticism of past and present ethical doctrine. It would, however, be easy to show that whatever steadiness or consistency these moral beliefs have attained has been mainly due to the tacit influence of a

standard not recognized. Although the nonexistence of an acknowledged first principle has made ethics not so much a guide as a consecration of men's actual sentiments, still, as men's sentiments, both of favor and of aversion, are greatly influenced by what they suppose to be the effects of things upon their happiness, the principle of utility, or, as Bentham latterly called it, the greatest-happiness principle, has had a large share in forming the moral doctrines even of those who most scornfully reject its authority. Nor is there any school of thought which refuses to admit that the influence of actions on happiness is a most material and even predominant consideration in many of the details of morals, however unwilling to acknowledge it as the fundamental principle of morality and the source of moral obligation. I might go much further, and say that, to all those a priori moralists who deem it necessary to argue at all, utilitarian arguments are indispensable. It is not my present purpose to criticize these thinkers, but I cannot help referring, for illustration, to a systematic treatise by one of the most illustrious of them the *Metaphysics of Ethics*, by Kant. This remarkable man, whose system of thought will long remain one of the landmarks in the history of philosophical speculation, does, in the treatise in question, lay down a universal first principle as the origin and ground of moral obligation. It is this: "So act, that the rule on which thou attest would admit of being adopted as a law by all rational beings." But when he begins to deduce from this precept any of the actual duties of morality, he fails, almost grotesquely, to show that there would be any contradiction, any logical (not to say physical) impossibility, in the adoption by all rational beings of the most outrageously immoral rules of conduct. All he shows is that the consequences of their universal adoption would be such as no one would choose to incur.

On the present occasion, I shall, without further discussion of the other theories, attempt to contribute something towards the understanding and appreciation of the Utilitarian or Happiness theory and towards such proof as it is susceptible of. It is evident that this cannot be proof in the ordinary and popular meaning of the term. Questions of ultimate ends are not amenable to direct proof. Whatever can be proved to be good, must be so by being shown to be a means to something admitted to be good without proof. The medical art is proved to be good by its conducing to health, but how is it possible to prove that health is good? The art of music is good, for the reason, among others, that it produces pleasure, but what proof is it possible to give that pleasure is good? If, then, it is asserted that there is a comprehensive formula, including all things which are in themselves good, and that whatever else is good is not so as an end, but as a mean, the formula may be accepted or rejected, but is not a subject of what is commonly understood by proof. We are not, however, to infer that its acceptance or rejection must depend on blind impulse or arbitrary choice. There is a larger meaning of the word "proof," in which this question is as amenable to it as any other of the disputed questions of philosophy. The subject is within the cognizance of the rational faculty, and neither does that faculty deal with it solely in the way of intuition. Considerations may be presented capable of de

termining the intellect either to give or withhold its assent to the doctrine, and this is equivalent to proof.

We shall examine presently of what nature are these considerations, in what manner they apply to the case, and what rational grounds, therefore, can be given for accepting or rejecting the utilitarian formula. But it is a preliminary condition of rational acceptance or rejection that the formula should be correctly understood. I believe that the very imperfect notion ordinarily formed of its meaning is the chief obstacle which impedes its reception, and that, could it be cleared even from only the grosser misconceptions, the question would be greatly simplified, and a large proportion of its difficulties removed. Before, therefore, I attempt to enter into the

philosophical grounds which can be given for assenting to the utilitarian standard, I shall offer some illustrations of the doctrine itself, with the view of showing more clearly what it is, distinguishing it from what it is not, and disposing of such of the practical objections to it as either originate in, or are closely connected with, mistaken interpretations of its meaning. Having thus prepared the ground, I shall afterwards endeavor to throw such light as I can upon the question, considered as one of philosophical theory.

2. WHAT UTILITARIANISM IS

A passing remark is all that needs be given to the ignorant blunder of supposing that those who stand up for utility, as the test of right and wrong, use the term in that restricted and merely colloquial sense in which utility is opposed to pleasure. An apology is due to the philosophical opponents of utilitarianism for even the momentary appearance of confounding them with any one capable of so absurd a misconception, which is the more extraordinary, inasmuch as the contrary accusation, of referring every thing to pleasure, and that, too, in its grossest form, is another of the common charges against utilitarianism, and, as has been pointedly remarked by an able writer, the same sort of persons, and often the very same persons, denounce the theory "as impracticably dry when the word 'utility' precedes the word 'pleasure,' and as too practicably voluptuous when the word 'pleasure' precedes the word 'utility.'" Those who know any thing about the matter are aware that every writer from Epicurus to Bentham who maintained the theory of utility meant by it, not something to be contradistinguished from pleasure, but pleasure itself, together with exemption from pain, and, instead of opposing the useful to the agreeable or the ornamental, have always declared that the useful means these, among other things. Yet the common herd, including the herd of writers, not only in newspapers and periodicals, but in books of weight and pretension, are perpetually falling into this shallow mistake. Having caught up the word "utilitarian," while knowing nothing whatever about it but its sound, they habitually express by it the rejection or the neglect of pleasure in some of its forms, of beauty, of ornament, or of amusement. Nor is the term thus ignorantly misapplied solely in disparagement, but occasionally in compliment, as though it implied superiority to frivolity and the mere pleasures of the moment. And this perverted use is the only one in which the word is popularly known, and the one from which the new generation are acquiring their sole notion of its meaning. Those who introduced the word, but who had for many years discontinued it as a distinctive appellation, may well feel themselves called upon to resume it, if by doing so they can hope to contribute any thing towards rescuing it from this utter degradation.

The creed which accepts as the foundation of morals Utility, or the Greatest-happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure and the absence of pain, by unhappiness, pain and the privation of pleasure. To give a clear view of the moral standard set up by the theory, much more requires to be said, in particular, what things it includes in the ideas of pain and pleasure, and to what extent this is left an open question. But these supplementary explanations do not affect the theory of life on which this theory of morality is grounded—namely, that pleasure and freedom from pain are the only things desirable as ends, and that all desirable things (which are as numerous in the

utilitarian as in any other scheme) are desirable either for the pleasure inherent in themselves, or as means to the promotion of pleasure and the prevention of pain.

Now, such a theory of life excites in many minds, and among them in some of the most estimable in feeling and purpose, inveterate dislike. To suppose that life has (as they express it) no higher end than pleasure—no better and nobler object of desire and pursuit—they designate as

utterly mean and groveling, as a doctrine worthy only of swine, to whom the followers of Epicurus were, at a very early period, contemptuously likened; and modern holders of the doctrine are occasionally made the subject of equally polite comparisons by its German, French, and English assailants.

When thus attacked, the Epicureans have always answered, that it is not they, but their accusers, who represent human nature in a degrading light, since the accusation supposes human beings to be capable of no pleasures except those of which swine are capable. If this supposition were true, the charge could not be gainsaid but would then be no longer an imputation; for, if the sources of pleasure were precisely the same to human beings and to swine, the rule of life which is good enough for the one would be good enough for the other. The comparison of the Epicurean life to that of beasts is felt as degrading, precisely because a beast's pleasures do not satisfy a human being's conceptions of happiness. Human beings have faculties more elevated than the animal appetites, and, when once made conscious of them, do not regard any thing as happiness which does not include their gratification. I do not, indeed, consider the Epicureans to have been by any means faultless in drawing out their scheme of consequences from the utilitarian principle. To do this in any sufficient manner, many Stoic as well as Christian elements require to be included. But there is no known Epicurean theory of life which does not assign to the pleasures of the intellect, of the feelings and imagination, and of the moral sentiments, a much higher value as pleasures than to those of mere sensation. It must be admitted, however, that utilitarian writers in general have placed the superiority of mental over bodily pleasures chiefly in the greater permanency, safety, uncostliness, etc., of the former—that is, in their circumstantial advantages rather than in their intrinsic nature. And, on all these points, utilitarians have fully proved their case, but they might have taken the other, and, as it may be called, higher ground, with entire consistency. It is quite compatible with the principle of utility to recognize the fact that some kinds of pleasure are more desirable and more valuable than others. It would be absurd that while, in estimating all other things, quality is considered as well as quantity, the estimation of pleasures should be supposed to depend on quantity alone.

If I am asked what I mean by difference of quality in pleasures, or what makes one pleasure more valuable than another, merely as a pleasure, except its being greater in amount, there is but one possible answer. Of two pleasures, if there be one to which all or almost all who have experience of both give a decided preference, irrespective of any feeling of moral obligation to prefer it, that is the more desirable pleasure. If one of the two is, by those who are competently acquainted with both, placed so far above the other that they prefer it, even though knowing it to be attended with a greater amount of discontent, and would not resign it for any quantity of the other pleasure which their nature is capable of, we are justified in ascribing to the preferred enjoyment a superiority in quality so far outweighing quantity, as to render it, in comparison, of small account.

Now, it is an unquestionable fact, that those who are equally acquainted with and equally capable of appreciating and enjoying both do give a most marked preference to the manner of existence which employs their higher faculties. Few human creatures would consent to be changed into any of the lower animals for a promise of the fullest allowance of a beast's pleasures; no intelligent human being would consent to be a fool, no instructed person would be an ignoramus, no person of feeling and conscience would be selfish and base, even though they should be persuaded that the fool, the dunce, or the rascal is better satisfied with his lot than they are with theirs. They would not resign what they possess more than he for the most complete satisfaction of all the desires which they have in common

with him. If they ever fancy they would, it is only in cases of unhappiness so extreme that, to escape from it, they would exchange their lot for almost any other, however undesirable in their own eyes. A being of higher faculties requires more to make him happy, is capable probably of more acute suffering, and certainly accessible to it at more points, than one of an inferior type, but, in spite of these liabilities, he can never really wish to sink into what he feels to be a lower grade of existence. We may give what explanation we please of this unwillingness: we may attribute it to pride, a name which is given indiscriminately to some of the most and to some of the least estimable feelings of which mankind are capable; we may refer it to the love of liberty and personal independence-an appeal to which was with the Stoics one of the most effective means for the inculcation of it; to the love of power, or to the love of excitement, both of which do really enter into and contribute to it; but its most appropriate appellation is a sense of dignity, which all human beings possess in one form or other, and in some, though by no means in exact, proportion to their higher faculties, and which is so essential a part of the happiness of those in whom it is strong, that nothing which conflicts with it could be, otherwise than momentarily, an object of desire to them. Whoever supposes that this preference takes place at a sacrifice of happiness, that the superior being, in any thing like equal circumstances, is not happier than the inferior-confounds the two very different ideas of happiness and content. It is indisputable that the being whose capacities of enjoyment are low has the greatest chance of having them fully satisfied, and a highly endowed being will always feel that any happiness which he can look for, as the world is constituted, is imperfect. But he can learn to bear its imperfections, if they are at all bearable, and they will not make him envy the being who is indeed unconscious of the imperfections, but only because he feels not at all the good which those imperfections qualify. It is better to be a human being dissatisfied than a pig satisfied, better to be Socrates dissatisfied than a fool satisfied. And if the fool or the pig are of a different opinion, it is because they only know their own side of the question. The other party to the comparison knows both sides.

It may be objected that many who are capable of the higher pleasures occasionally, under the influence of temptation, postpone them to the lower. But this is quite compatible with a full appreciation of the intrinsic superiority of the higher. Men often, from infirmity of character, make their election for the nearer good, though they know it to be the less valuable, and this no less when the choice is between two bodily pleasures than when it is between bodily and mental. They pursue sensual indulgences to the injury of health, though perfectly aware that health is the greater good. It may be further objected, that many who begin with youthful enthusiasm for everything noble, as they advance in years sink into indolence and selfishness. But I do not believe that those who undergo this very common change voluntarily choose the lower description of pleasures in preference to the higher. I believe that, before they devote themselves exclusively to the one, they have already become incapable of the other. Capacity for the nobler feelings is in most natures a very tender plant, easily killed, not only by hostile influences but by mere want of sustenance, and, in the majority of young persons, it speedily dies away if the occupations to which their position in life has devoted them, and the society into which it has thrown them, are not favorable to keeping that higher capacity in exercise. Men lose their high aspirations as they lose their intellectual tastes, because they have not time or opportunity for indulging them, and they addict themselves to inferior pleasures, not because they deliberately prefer them, but because they are either the only ones to which they have access or the only ones which they are any longer capable of enjoying. It may be questioned whether any one who has remained equally susceptible to both classes of pleasures ever knowingly and calmly preferred

the lower, though many in all ages have broken down in an ineffectual attempt to combine both.

From this verdict of the only competent judges, I apprehend there can be no appeal. On a question which is the best worth having of two pleasures, or which of two modes of existence is the most grateful to the feelings, apart

from its moral attributes and from its consequences, the judgment of those who are qualified by knowledge of both, or, if they differ, that of the majority among them, must be admitted as final. And there needs be the less hesitation to accept this judgment respecting the quality of pleasures, since there is no other tribunal to be referred to even on the question of quantity. What means are there of determining which is the acutest of two pains, or the intensett of two pleasurable sensations, except the general suffrage of those who are familiar with both? Neither pains nor pleasures are homogeneous, and pain is always heterogeneous with pleasure. What is there to decide whether a particular pleasure is worth purchasing at the cost of a particular pain, except the feelings and judgment of the experienced? When, therefore, those feelings and judgment declare the pleasures derived from the higher faculties to be preferable in kind, apart from the question of intensity, to those of which the animal nature disjoined from the higher faculties is susceptible, they are entitled on this subject to the same regard.

I have dwelt on this point, as being a necessary part of a perfectly just conception of Utility or Happiness, considered as the directive rule of human conduct. But it is by no means an indispensable condition to the acceptance of the utilitarian standard, for that standard is not the agent's own greatest happiness, but the greatest amount of happiness altogether; and if it may possibly be doubted whether a noble character is always the happier for its nobleness, there can be no doubt that it makes other people happier, and that the world in general is immensely a gainer by it. Utilitarianism, therefore, could only attain its end by the general cultivation of nobleness of character, even if each individual were only benefited by the nobleness of others, and his own, so far as happiness is concerned, were a sheer deduction from the benefit. But the bare enunciation of such an absurdity as this last renders refutation superfluous.

According to the Greatest-happiness Principle, as above explained, the ultimate end with reference to and for the sake of which all other things are desirable (whether we are considering our own good or that of other people) is an existence exempt as far as possible from pain, and as rich as possible in enjoyments, both in point of quantity and quality; the test of quality, and the rule for measuring it against quantity, being the preference felt by those who in their opportunities of experience, to which must be added their habits of self-consciousness and self-observation, are best furnished with the means of comparison. This being, according to the utilitarian opinion, the end of human action is necessarily also the standard of morality; which may accordingly be defined, the rules and precepts for human conduct by the observance of which an existence such as has been described might be, to the greatest extent possible, secured to all mankind, and not to them only but, so far as the nature of things admits, to the whole sentient creation.

Against this doctrine, however, arises another class of objectors who say that happiness, in any form, cannot be the rational purpose of human life and action, because, in the first place, it is unattainable; and they contemptuously ask, What right hast thou to be happy? a question which Mr. Carlyle clinches by the addition, What right, a short time ago, hadst thou even to be? Next they say that men can do without happiness, that all noble human beings have felt this, and could not have become noble but by learning the lesson of Entsagen or renunciation, which lesson, thoroughly learned and submitted to, they affirm to be the beginning and necessary condition of all virtue.

The first of these objections would go to the root of the matter, were it well founded; for, if no happiness is to be had at all by human beings, the attainment of it cannot be the end of morality, or of any rational conduct. Though, even in that case, something might still be said for the utilitarian theory, since utility includes not solely the pursuit of happiness, but the prevention or mitigation of unhappiness; and, if the former aim be chimerical, there will be all the greater scope and more imperative need for the latter, so long at least as mankind think fit to live, and do not take refuge in the simultaneous act of suicide recommended under certain conditions by Novalis. When, however, it is thus positively asserted to be impossible that human life should be happy, the assertion, if not something like a verbal

quibble, is at least an exaggeration. If by happiness be meant a continuity of highly pleasurable excitement, it is evident enough that this is impossible. A state of exalted pleasure lasts only moments, or in some cases, and with some intermissions, hours or days, and is the occasional brilliant flash of enjoyment, not its permanent and steady flame. Of this the philosophers who have taught that happiness is the end of life were as fully aware as those who taunt them. The happiness which they meant was not a life of rapture, but moments of such, in an existence made up of few and transitory pains, many and various pleasures, with a decided predominance of the active over the passive, and having, as the foundation of the whole, not to expect more from life than it is capable of bestowing. A life thus composed, to those who have been fortunate enough to obtain it, has always appeared worthy of the name of "happiness." And such an existence is even now the lot of many, during some considerable portion of their lives. The present wretched education and wretched social arrangements are the only real hindrance to its being attainable by almost all.

The objectors, perhaps, may doubt whether human beings, if taught to consider happiness as the end of life, would be satisfied with such a moderate share of it. But great numbers of mankind have been satisfied with much less. The main constituents of a satisfied life appear to be two, either of which by itself is often found sufficient for the purpose—tranquillity and excitement. With much tranquillity, many find that they can be content with very little pleasure; with much excitement, many can reconcile themselves to a considerable quantity of pain. There is assuredly no inherent impossibility in enabling even the mass of mankind to unite both, since the two are so far from being incompatible, that they are in natural alliance, the prolongation of either being a preparation for, and exciting a wish for, the other. It is only those in whom indolence amounts to a vice that do not desire excitement after an interval of repose; it is only those in whom the need of excitement is a disease, that feel the tranquillity which follows excitement dull and insipid, instead of pleasurable in direct proportion to the excitement which preceded it. When people who are tolerably fortunate in their outward lot do not find in life sufficient enjoyment to make it valuable to them, the cause generally is caring for nobody but themselves. To those who have neither public nor private affections, the excitements of life are much curtailed and, in any case, dwindle in value as the time approaches when all selfish interests must be terminated by death; while those who leave after them objects of personal affection, and especially those who have also cultivated a fellow feeling with the collective interests of mankind, retain as lively an interest in life on the eve of death as in the vigor of youth and health. Next to selfishness, the principal cause which makes life unsatisfactory is want of mental cultivation. A cultivated mind I do not mean that of a philosopher, but any mind to which the fountains of knowledge have been opened, and which has been taught, in any tolerable degree, to exercise its faculties—finds sources of inexhaustible interest in all that surrounds it, in the objects of nature, the achievements of art, the imaginations of poetry, the incidents of history,

the ways of mankind past and present, and their prospects in the future. It is possible, indeed, to become indifferent to all this, and that, too, without having exhausted a thousandth part of it, but only when one has had from the beginning no moral or human interest in these things, and has sought in them only the gratification of curiosity.

Now, there is absolutely no reason in the nature of things why an amount of mental culture sufficient to give an intelligent interest in these objects of contemplation should not be the inheritance of every one born in a civilized country. As little is there an inherent necessity that any human being should be a selfish egotist, devoid of every feeling or care but those which center in his own miserable individuality. Something far superior to this is sufficiently common even now to give ample earnest of what the human species may be made. Genuine private affections and a sincere interest in the public good are possible, though in unequal degrees, to every rightly brought up human being. In a world in which there is so much to interest, so much to enjoy, and so much also to correct and improve, every one who has this moderate amount of moral

and intellectual requisites is capable of an existence which may be called enviable; and unless such a person, through bad laws or subjection to the will of others, is denied the liberty to use the sources of happiness within his reach, he will not fail to find this enviable existence, if he escape the positive evils of life, the great sources of physical and mental suffering—such as indigence, disease, and the unkindness, worthlessness, or premature loss, of objects of affection. The main stress of the problem lies, therefore, in the contest with these calamities, from which it is a rare good fortune entirely to escape, which, as things now are, cannot be obviated, and often cannot be in any material degree mitigated. Yet no one whose opinion deserves a moment's consideration can doubt that most of the great positive evils of the world are in themselves removable, and will, if human affairs continue to improve, be in the end reduced within narrow limits. Poverty, in any sense implying suffering, may be completely extinguished by the wisdom of society, combined with the good sense and providence of individuals. Even that most intractable of enemies, disease, may be indefinitely reduced in dimensions by good physical and moral education, and proper control of noxious influence, while the progress of science holds out a promise for the future of still more direct conquests over this detestable foe. And every advance in that direction relieves us from some, not only of the chances which cut short our own lives but, what concerns us still more, which deprive us of those in whom our happiness is wrapped up. As for vicissitudes of fortune and other disappointments connected with worldly circumstances, these are principally the effect either of gross imprudence, of ill-regulated desires, or of bad or imperfect social institutions. All the grand sources, in short, of human suffering are in a great degree, many of them almost entirely, conquerable by human care and effort; and though their removal is grievously slow, though a long succession of generations will perish in the breach before the conquest is completed, and this world becomes all that, if will and knowledge were not wanting, it might easily be made—yet every mind sufficiently intelligent and generous to bear a part, however small and unobtrusive, in the endeavor will draw a noble enjoyment from the contest itself, which he would not, for any bribe in the form of selfish indulgence, consent to be without.

And this leads to the true estimation of what is said by the objectors concerning the possibility and the obligation of learning to do without happiness. Unquestionably, it is possible to do without happiness; it is done involuntarily by nineteenth-century men of mankind, even in those parts of our present world which are least deep in barbarism, and it often has to be done voluntarily by the hero or the martyr, for the sake of something which he prizes more than his

individual happiness. But this something-what is it, unless the happiness of others, or some of the requisites of happiness? It is noble to be capable of resigning entirely one's own portion of happiness, or chances of it; but, after all, this self-sacrifice must be for some end; it is not its own end, and if we are told that its end is not happiness but virtue, which is better than happiness, I ask, Would the sacrifice be made if the hero or martyr did not believe that it would earn for others immunity from similar sacrifices? Would it be made if he thought that his renunciation of happiness for himself would produce no fruit for any of his fellowcreatures but to make their lot like his, and place them also in the condition of persons who have renounced happiness? All honor to those who can abnegate for themselves the personal enjoyment of life, when by such renunciation they contribute worthily to increase the amount of happiness in the world, but he who does it, or professes to do it, for any other purpose is no more deserving of admiration than the ascetic mounted on his pillar. He may be an inspiring proof of what men can do, but assuredly not an example of what they should.

Though it is only in a very imperfect state of the world's arrangements that any one can best serve the happiness of others by the absolute sacrifice of his own, yet, so long as the world is in that imperfect state, I fully acknowledge that the readiness to make such a sacrifice is the highest virtue which can be found in man. I will add that in this condition of the world, paradoxical as the assertion may be, the conscious ability to do without happiness gives the best prospect of

realizing such happiness as is attainable. For nothing except that consciousness can raise a person above the chances of life, by making him feel that, let fate and fortune do their worst, they have not power to subdue him; which, once felt, frees him from excess of anxiety concerning the evils of life, and enables him, like many a Stoic in the worst times of the Roman Empire, to cultivate in tranquillity the sources of satisfaction accessible to him, without concerning himself about the uncertainty of their duration, any more than about their inevitable end.

Meanwhile, let utilitarians never cease to claim the morality of self-devotion as a possession which belongs by as good a right to them as either to the Stoic or to the Transcendentalist. The utilitarian morality does recognize in human beings the power of sacrificing their own greatest good for the good of others. It only refuses to admit that the sacrifice is itself a good. A sacrifice which does not increase, or tend to increase, the sum total of happiness, it considers as wasted. The only selfrenunciation which it applauds is devotion to the happiness, or to some of the means of happiness, of others, either of mankind collectively, or of individuals within the limits imposed by the collective interests of mankind.

I must again repeat what the assailants of utilitarianism seldom have the justice to acknowledge, that the happiness which forms the utilitarian standard of what is right in conduct is not the agent's own happiness but that of all concerned. As between his own happiness and that of others, utilitarianism requires him to be as strictly impartial as a disinterested and benevolent spectator. In the golden rule of Jesus of Nazareth, we read the complete spirit of the ethics of utility. To do as you would be done by, and to love your neighbor as yourself, constitute the ideal perfection of utilitarian morality. As the means of making the nearest approach to this ideal, utility would enjoin, first, that laws and social arrangements should place the happiness or (as, speaking practically, it may be called) the interest of every individual as nearly as possible in harmony with the interest of the whole; and secondly, that education and opinion, which have so vast a power over human character, should so use that power as to establish in the mind of every individual an indissoluble association between his own happiness and the good of the

whole-especially between his own happiness, and the practice of such modes of conduct, negative and positive, as regard for the universal happiness prescribes-so that not only he may be unable to conceive the possibility of happiness to himself consistently with conduct opposed to the general good, but also that a direct impulse to promote the general good may be in every individual one of the habitual motives of action, and the sentiments connected therewith may fill a large and prominent place in every human being's sentient existence. If the impugnors of the utilitarian morality represented it to their own minds in this its true character, I know not what recommendation possessed by any other morality they could possibly affirm to be wanting to it, what more beautiful or more exalted developments of human nature any other ethical system can be supposed to foster, or what springs of action, not accessible to the utilitarian, such systems rely on for giving effect to their mandates.

The objectors to utilitarianism cannot always be charged with representing it in a discreditable light. On the contrary, those among them who entertain any thing like a just idea of its disinterested character sometimes find fault with its standard as being too high for humanity. They say it is exacting too much to require that people shall always act from the inducement of promoting the general interests of society. But this is to mistake the very meaning of a standard of morals, and confound the rule of action with the motive of it. It is the business of ethics to tell us what are our duties or by what test we may know them, but no system of ethics requires that the sole motive of all we do shall be a feeling of duty; on the contrary, ninety-nine hundredths of all our actions are done from other motives, and rightly so done, if the rule of duty does not condemn them. It is the more unjust to utilitarianism that this particular misapprehension should be made a ground of objection to it, inasmuch as utilitarian moralists have gone beyond almost all others in affirming that the motive has nothing to do with the morality of the action though much with the worth of

the agent. He who saves a fellow creature from drowning does what is morally right, whether his motive be duty or the hope of being paid for his trouble; he who betrays the friend that trusts him is guilty of a crime, even if his object be to serve another friend to whom he is under greater obligations. But to speak only of actions done from the motive of duty, and in direct obedience to principle: it is a misapprehension of the utilitarian mode of thought to conceive it as implying that people should fix their minds upon so wide a generality as the world or society at large. The great majority of good actions are intended, not for the benefit of the world but for that of individuals, of which the good of the world is made up; and the thoughts of the most virtuous man need not on these occasions travel beyond the particular persons concerned, except so far as is necessary to assure himself that, in benefiting them, he is not violating the rights-that is, the legitimate and authorized expectations-of any one else. The multiplication of happiness is, according to the utilitarian ethics, the object of virtue; the occasions on which any person (except one in a thousand) has it in his power to do this on an extended scale-in other words, to be a public benefactor-are but exceptional, and on these occasions alone is he called on to consider public utility; in every other case, private utility, the interest or happiness of some few persons, is all he has to attend to. Those alone, the influence of whose actions extends to society in general, need concern themselves habitually about so large an object. In the case of abstinences indeed-of things which people forbear to do from moral considerations, though the consequences in the particular case might be beneficial-it would be unworthy of an intelligent agent not to be consciously aware that the action is of a class which, if practised generally, would be generally injurious, and that this is the ground of the obligation to abstain from it. The amount of regard for the public interest implied in this recognition is no

greater than is demanded by every system of morals, for they all enjoin to abstain from whatever is manifestly pernicious to society.

The same considerations dispose of another reproach against the doctrine of utility, founded on a still grosser misconception of the purpose of a standard of morality, and of the very meaning of the words "right" and "wrong." It is often affirmed that utilitarianism renders men cold and unsympathizing, that it chills their moral feelings towards individuals, that it makes them regard only the dry and hard consideration of the consequences of actions, not taking into their moral estimate the qualities from which those actions emanate. If the assertion means that they do not allow their judgment respecting the rightness or wrongness of an action to be influenced by their opinion of the qualities of the person who does it, this is a complaint, not against utilitarianism but against having any standard of morality at all; for certainly no known ethical standard decides an action to be good or bad because it is done by a good or bad man, still less because done by an amiable, a brave, or a benevolent man, or the contrary. These considerations are relevant, not to the estimation of actions, but of persons, and there is nothing in the utilitarian theory inconsistent with the fact that there are other things which interest us in persons besides the rightness and wrongness of their actions. The Stoics indeed, with the paradoxical misuse of language which was part of their system and by which they strove to raise themselves above all concern about any thing but virtue, were fond of saying that he who has that has everything, that he, and one he, is rich, is beautiful, is a king. But no claim of this description is made for the virtuous man by the utilitarian doctrine. Utilitarians are quite aware that there are other desirable possessions and qualities besides virtue, and are perfectly willing to allow to all of them their full worth. They are also aware that a right action does not necessarily indicate a virtuous character, and that actions which are blamable often proceed from qualities entitled to praise. When this is apparent in any particular case, it modifies their estimation, not certainly of the act but of the agent. I grant that they are notwithstanding of opinion that, in the long run, the best proof of a good character is good actions, and resolutely refuse to consider any mental disposition as good, of which the predominant tendency is to produce bad conduct. This makes them unpopular with many people; but it is an unpopularity which they must share with every one who regards the distinction between right and wrong in a serious light, and the reproach is not one which a conscientious utilitarian need be anxious to repel.

If no more be meant by the objection than that many utilitarians look on the morality of actions, as measured by the utilitarian standards, with too exclusive a regard, and do not lay sufficient stress upon the other beauties of character which go towards making a human being lovable or admirable, this may be admitted. Utilitarians who have cultivated their moral feelings but not their sympathies nor their artistic perceptions, do fall into this mistake, and so do all other moralists under the same conditions. What can be said in excuse for other moralists is equally available for them, namely that, if there is to be any error, it is better that it should be on that side. As a matter of fact, we may affirm that among utilitarians, as among adherents of other systems, there is every imaginable degree of rigidity and of laxity in the application of their standard; some are even puritanically rigorous, while others are as indulgent as can possibly be desired by sinner or by sentimentalist. But on the whole, a doctrine which brings prominently forward the interest that mankind have in the repression and prevention of conduct which violates the moral law, is likely to be inferior to no other in turning the sanctions of opinion against such violations. It is true, the question, What does violate the moral law? is one on which those who recognize different standards of morality are likely now and then to differ. But difference of opinion on moral questions was not first introduced into the world by utilitarianism,

while that doctrine does supply, if not always an easy, at all events a tangible and intelligible mode of deciding such differences.

It may not be superfluous to notice a few more of the common misapprehensions of utilitarian ethics, even those which are so obvious and gross that it might appear impossible for any person of candor and intelligence to fall into them, since persons even of considerable mental endowments often give themselves so little trouble to understand the bearings of any opinion against which they entertain a prejudice, and men are in general so little conscious of this voluntary ignorance as a defect, that the vulgarest misunderstandings of ethical doctrines are continually met with the deliberate writings of persons of the greatest pretensions both to high principle and to philosophy. We not uncommonly hear the doctrine of utility inveighed against as a godless doctrine. If it be necessary to say any thing at all against so mere an assumption, we may say that the question depends upon what idea we have formed of the moral character of the Deity. If it be a true belief that God desires, above all things, the happiness of his creatures, and that this was his purpose in their creation, utility is not only not a godless doctrine but more profoundly religious than any other. If it be meant that utilitarianism does not recognize the revealed will of God as the supreme law of morals, I answer that an utilitarian, who believes in the perfect goodness and wisdom of God, necessarily believes that whatever God has thought fit to reveal on the subject of morals must fulfil the requirements of utility in a supreme degree. But others besides utilitarians have been of opinion that the Christian revelation was intended, and is fitted, to inform the hearts and minds of mankind with a spirit which should enable them to find for themselves what is right and incline them to do it when found, rather than to tell them, except in a very general way, what it is, and that we need a doctrine of ethics, carefully followed out, to interpret to us the will of God. Whether this opinion is correct or not, it is superfluous here to discuss, since whatever aid religion, either natural or revealed, can afford to ethical investigation, is as open to the utilitarian moralist as to any other. He can use it as the testimony of God to the usefulness or hurtfulness of any given course of action, by as good a right as others can use it for the indication of a transcendental law, having no connection with usefulness or with happiness.

Again: Utility is often summarily stigmatized as an immoral doctrine by giving it the name of Expediency and, taking advantage of the popular use of that term, to contrast it with Principle. But the Expedient, in the sense in which it is opposed to the Right, generally means that which is expedient for the particular interest of the agent himself, as when a minister sacrifices the interests of his country to keep himself in

place. When it means any thing better than this, it means that which is expedient for some immediate object, some temporary purpose, but which violates a rule whose observance is expedient in a much higher degree. The Expedient, in this sense, instead of being the same thing with the useful, is a branch of the hurtful. Thus it would often be expedient, for the purpose of getting over some momentary embarrassment or attaining some object immediately useful to ourselves or others, to tell a lie. But inasmuch as the cultivation in ourselves of a sensitive feeling on the subject of veracity is one of the most useful, and the enfeeblement of that feeling one of those most hurtful, things to which our conduct can be instrumental, and inasmuch as any, even unintentional, deviation from truth does that much towards weakening the trustworthiness of human assertion, which is not only the principal support of all present social well-being, but the insufficiency of which does more than any one thing that can be named to keep back civilization, virtue, every thing on which human happiness on the largest scale depends—we feel that the violation, for a present advantage, of a rule of such transcendent expediency is not expedient, and that he who, for the sake of a convenience to himself or to some other individual, does what

depends on him to deprive mankind of the good, and inflict upon them the evil, involved in the greater or less reliance which they can place in each other's word, acts the part of one of their worst enemies. Yet that even this rule, sacred as it is, admits of possible exceptions is acknowledged by all moralists, the chief of which is, when the withholding of some fact (as of information from a malefactor, or of bad news from a person dangerously ill) would save an individual (especially an individual other than one's self) from great and unmerited evil and when the withholding can only be effected by denial. But in order that the exception may not extend itself beyond the need and may have the least possible effect in weakening reliance on veracity, it ought to be recognized and, if possible, its limits defined, and, if the principle of utility is good for any thing, it must be good for weighing these conflicting utilities against one another, and marking out the region within which one or the other preponderates.

Again: defenders of utility often find themselves called upon to reply to such objections as this—that there is not time, previous to action, for calculating and weighing the effects of any line of conduct on the general happiness. This is exactly as if any one were to say that it is impossible to guide our conduct by Christianity, because there is not time, on every occasion on which any thing has to be done, to read through the Old and New Testaments. The answer to the objection is that there has been ample time, namely, the whole past duration of the human species. During all that time, mankind have been learning by experience the tendencies of actions, on which experience all the prudence as well as all the morality of life are dependent. People talk as if the commencement of this course of experience had hitherto been put off and as if, at the moment when some man feels tempted to meddle with the property or life of another, he had to begin considering for the first time whether murder and theft are injurious to human happiness. Even then, I do not think that he would find the question very puzzling, but at all events the matter is now done to his hand. It is truly a whimsical supposition that, if mankind were agreed in considering utility to be the test of morality, they would remain without any agreement as to what is useful, and would take no measures for having their notions on the subject taught to the young and enforced by law and opinion. There is no difficulty in proving any ethical standard whatever to work ill, if we suppose universal idiocy to be conjoined with it; but on any hypothesis short of that, mankind must by this time have acquired positive beliefs as to the effects of some actions on their happiness, and the beliefs which have thus come down are the rules of morality for the multitude, and for the philosopher, until he has succeeded in finding better. That philosophers might easily do this, even now, on many subjects, that the received code of ethics is by no means of divine right, and that mankind have still much to learn as to the effects of actions on the general happiness—I admit or, rather, earnestly maintain. The corollaries from the principle of utility, like the precepts of every practical art, admit of indefinite improvement and, in a

progressive state of the human mind, their improvement is perpetually going on. But to consider the rules of morality as improvable is one thing; to pass over the intermediate generalizations entirely, and endeavor to test each individual action directly by the first principle, is another. It is a strange notion, that the acknowledgment of a first principle is inconsistent with the admission of secondary ones. To inform a traveler respecting the place of his ultimate destination is not to forbid the use of landmarks and direction posts on the way. The proposition that happiness is the end and aim of morality does not mean that no road ought to be laid down to that goal, or that persons going thither should not be advised to take one direction rather than another. Men really ought to leave off talking a kind of nonsense on this subject which they would neither talk nor listen to on other matters of practical concernment. Nobody argues that

the art of navigation is not founded on astronomy, because sailors cannot wait to calculate the "Nautical Almanac." Being rational creatures, they go to sea with it ready calculated, and all rational creatures go out upon the sea of life with their minds made up on the common questions of right and wrong, as well as on many of the far more difficult questions of wise and foolish. And this, as long as foresight is a human quality, it is to be presumed they will continue to do. Whatever we adopt as the fundamental principle of morality, we require subordinate principles to apply it by; the impossibility of doing without them, being common to all systems, can afford no argument against any one in particular; but gravely to argue as if no such secondary principles could be had, and as if mankind had remained till now and always must remain without drawing any general conclusions from the experience of human life, is as high a pitch, I think, as absurdity has ever reached in philosophical controversy.

The remainder of the stock arguments against utilitarianism mostly consist in laying to its charge the common infirmities of human nature, and the general difficulties which embarrass conscientious persons in shaping their course through life. We are told that an utilitarian will be apt to make his own particular case an exception to moral rules and, when under temptation, will see an utility in the breach of a rule greater than he will see in its observance. But is utility the only creed which is able to furnish us with excuses for evildoing, and means of cheating our own conscience? They are afforded in abundance by all doctrines which recognize as a fact in morals the existence of conflicting considerations, which all doctrines do that have been believed by sane persons. It is not the fault of any creed, but of the complicated nature of human affairs, that rules of conduct cannot be so framed as to require no exceptions, and that hardly any kind of action can safely be laid down as either always obligatory or always condemnable. There is no ethical creed which does not temper the rigidity of its laws by giving a certain latitude, under the moral responsibility of the agent, for accommodation to peculiarities of circumstances and, under every creed, at the opening thus made, self-deception and dishonest casuistry get in. There exists no moral system under which there do not arise unequivocal cases of conflicting obligation. These are the real difficulties, the knotty points both in the theory of ethics and in the conscientious guidance of personal conduct. They are overcome practically with greater or with less success according to the

intellect and virtue of the individual, but it can hardly be pretended that any one will be the less qualified for dealing with them, from possessing an ultimate standard to which conflicting rights and duties can be referred. If utility is the ultimate source of moral obligations, utility may be invoked to decide between them when their demands are incompatible. Though the application of the standard may be difficult, it is better than none at all; while in other systems, the moral laws all claiming independent authority, there is no common umpire entitled to interfere between them, their claims to precedence one over another rest on little better than sophistry, and unless determined, as they generally are, by the unacknowledged influence of considerations of utility, afford a free scope for the action of personal desires and partialities. We must remember that only in these cases of conflict between secondary principles is it requisite that first principles should be appealed to. There is no case of moral obligation in which some secondary principle is not involved and, if only one, there can seldom be any real doubt which one it is, in the mind of any person by whom the principle itself is recognized.

ETHICAL PROBLEMS

G L O S S A R Y

Italic terms within the definition are defined in the glossary.

Academics Members of Plato's school of philosophy.

Active euthanasia Mercy killing that involves the intention, on the part of the doctor, to terminate the life of the patient for the patient's own good.

Ad hoc (Latin, "for a specific purpose.") An hypothesis is ad hoc if it is adopted purely to save a theory from a difficulty without an independent motivation of its own.

Ad infinitum Into infinity; endlessly.

Aesthetic Belonging to the appreciation of beauty.

Aesthetics Pertaining to the appreciation of beauty and other values of pictorial art, music, poetry, fiction, and drama.

A fortiori (Latin, "from the stronger.") This means "and even more so" or "all the more." For example, John owns horses of all ages; a fortiori he owns young horses.

Agnoiology The theory of ignorance.

Agnosticism The view that something is not known, and perhaps cannot be known. In theology, the view that the existence or nonexistence of God is not known. Neither theism nor atheism can be justified.

Akrasia (Greek, for "weakness of the will.") Not being able to make yourself do what you think it would be best for you to do.

Altruism Any act that seeks to advance the good of others for their own sake and not for the sake of advancing the self-interest of the agent. (See ethical altruism.)

Analytical behaviorism See behaviorism, logical.

Analytic statement Originally introduced by Kant, an analytic statement is one where the concept of the predicate is contained within the concept of the subject. For example, the statement that all bachelors are unmarried is analytic. The concept "unmarried" is contained within the concept "bachelor." Frege generalized the notion to cover more than just subject-predicate statements. For Frege, an analytic statement is true solely in virtue of the meanings of the words in which it is expressed. Also known as a "tautology." (See synthetic statement.)

Antecedent What comes before. In a statement of the form, "If A then B," A is the antecedent, and B is the consequent.

Anthropomorphism Attributing human characteristics, such as human form or human thoughts and intentions, to something that is not human. For example, attributing intentions to rocks to explain why they move or attributing a human appearance to God.

A posteriori Knowledge that is not a priori. A posteriori knowledge, though it may involve the use of reason, depends upon evidence from experience.

A priori Knowledge that is based on reason, independently of experience. The ontological argument is an example of an a priori argument.

Arbitrary providing no better reason to adopt one position rather than another.

Argument A series of one or more statements called premises that are meant to support another statement called conclusion. (See also valid and sound.)

Argument from design See teleological argument.

Argumentum ad hominem An argument that attacks the character of an opponent and not the content of the opponent's position or argument. For example, arguing that because John is a jerk or John is uneducated that he cannot be correct.

Artificial intelligence (AI), strong The view that an appropriately programmed computer can have "intelligence," or, more generally, that such a computer can have a whole variety of cognitive states such as believing, wanting, intending, understanding, and so on.

Artificial intelligence (AI), weak The view that computers give us a useful research tool for investigating the mind, but they do not have and cannot be programmed to have true cognitive states in the sense that humans have such states.

Atheism The view that God does not exist.

Automaton A self-moving mechanical being capable of simulating the behavior of a conscious agent, but itself not a conscious agent.

Autonomy The capacity, right, or actual condition of self-government, or the determination of one's own actions.

Bayes's theorem A statistical theorem describing how, given an observed outcome, the conditional probability of each of a set of possible causes can be computed from knowledge of the probability of each cause and the conditional probability of the outcome, given each cause.

Begging the question The logical fallacy of assuming in the premises of an argument the very conclusion which is to be proved. For example, to argue that God exists because the Bible says so, and the Bible is reliable because it is the word of God, is to assume the very proposition one set out to prove in the process of its own proof. Also called "petitio principii." (See circular reasoning.)

Behaviorism, logical A view about the meaning of mental state terms. The view claims that mental terms such as "pain," "belief," or "desire" are equivalent in meaning to behavioral terms. This is supposed to show that mental states are dispositions to behave in certain ways. (Also called analytical behaviorism.)

Behaviorism, radical The methodological claim that psychology should study only regularities exhibited in behavior-such as principles connecting stimuli and responses. (Also called methodological behaviorism.)

Benevolence Desire or disposition to be good to others, kindly and charitable.

Bourgeois A member of the middle class in a market economy, with its characteristic tastes and ideas. Originally, the term referred to the class of capitalists in a market economy who owned the means of production.

Brute fact A fact for which there can be no explanation.

Cartesian Of, pertaining to, or related to Descartes or his philosophy.

Capitalism An economic system in which trade and industry are controlled by private owners. The owners provide the capital with which to produce goods and employ workers.

Catastrophism The geological doctrine, prevalent well into the 18th century, that the geological features of the surface of the Earth are the result of violent cataclysms. The doctrine assumed that the Earth is only a few thousand years old, and was congenial to theological

accounts of the origin and history of the Earth.

Categorical imperative A moral directive from reason that is binding without condition; a command that applies to all rational beings, no matter what. Kant formulated the categorical imperative as: "Act only according to that maxim by which you can at the same time will that it should become a universal law."

Causal theory of perception The theory that material objects are the causes of the ideas, appearances, or sense data we have of them. The material substance itself is distinct from its own qualities (including its primary qualities) and, not being directly perceivable, must simply be posited as an unknowable substratum for its powers and properties.

Causally possible Consistent with the causal laws of nature. A statement is causally possible if it is true in at least one physically possible world.

Causation The relationship between two events, one as cause, the other as effect. If the first event occurs, the second produces or necessitates the second.

Causa sui the cause of itself

Ceteris paribus other things being equal

Christolatry The worship of Christ as divine.

Circular reasoning When the conclusion is concealed within the premises of an argument. (See begging the question.)

Civil disobedience A nonviolent, conscientious, public form of protest contrary to the law that is done with the aim of bringing about a change in the law or policies of the government.

Cogito ergo sum This means "I think, therefore I am." This inference played a central role in Descartes's argument for the distinction between the mental and the physical and in his response to skepticism.

Cognitive process Mental operations such as reasoning, inferring, deliberating, planning, and perceiving.

Cognitive science The interdisciplinary study of cognitive processes in human beings, animals and machines. The core disciplines are psychology, computer science, linguistics, neuroscience, and philosophy.

Compatibilism See determinism, soft.

Computational theory of mind The view that mental states and processes are identical to computational states and processes. On this view, the mind is a (suitably programmed) computer.

Conclusion In an argument, the statement that is being argued for and that the premises are meant to jointly establish.

Consequentialism A type of moral theory stating that to act morally we must base our actions on their probable results or consequences, rather than acting out of duty, in cases where duty and promoting good consequences come into conflict. It can be contrasted with deontology. Examples of consequentialism are ethical egoism, utilitarianism, and ethical altruism.

Contiguity Contact or proximity; the state of being close together.

Contingent being A being whose existence depends on something else and therefore might not have come to exist. For example, your existence was contingent on your mother having conceived. (See also necessary being.)

Contractarianism The theory that the correct way to derive a principle of justice is to decide whether it would be chosen over any alternative principle of justice that could be

proposed to a group of normally self-interested, rational persons.

Contradiction Occurs when a statement is alleged to be both true and false.

Conventionalism The doctrine that the truth of a proposition, or a class of propositions, is determined not by fact but by social agreement or usage. Conventionalism is opposed to versions of realism, which hold that the truth of a proposition, or a class of propositions, is determined by objective facts of nature.

Corollary A proposition that is incidentally proved in proving another proposition.

Corporeal Bodily.

Corporeal substances Bodily substances.

Cosmogony (From the Greek word "kosmogonia" for creation of the world) Theory of the origin and development of the cosmos.

Cosmological argument Argument for the existence of God that holds (1) every being is either a dependent being or a self-existent being; (2) not every being can be a dependent being; (3) therefore, there exists a self-existent being, who is God.

Cosmos (From the Greek for "order") The whole universe conceived as ordered and law-governed.

Counterfactuals Statements describing what would have been true if something else were true. The interesting property of such statements for philosophical purposes is that they can be true even when the conditions described are not actually met. For instance, the statement that this wine glass would shatter if thrown to the ground

could be true of only an unshattered glass-one that has never met the conditional part of the counterfactual. Counterfactuals are thus a good way of expressing dispositions, tendencies, and other scientifically interesting regularities.

Creationism The theory in the philosophy of biology that God intervenes into the natural order to create new species and to create people.

Criterion A standard of judgment that is either a sufficient condition for something being the case, or a condition that provides good evidence for something being the case.

Culpable Deserving blame.

Cultural relativism The view that morality is relative to a given culture; what is right in one culture may be wrong in another. For example, cannibalism might be wrong for Greeks but right for Callatians. Cultural relativism goes beyond merely stating the fact that different cultures have different beliefs; it asserts that for each society, its beliefs are really right (not just believed to be right by its members). (See moral relativism.)

Darwinism Acceptance of the theory of evolution by natural selection developed originally by Charles Darwin (1809-1882).

Decision theory The theory of rational choices aimed at achieving an optimal outcome where the amount of information available to the agent is limited. The agent has only incomplete information about the true state of affairs and the possible consequences of each possible action.

Deductive argument An argument whose conclusion must be true if the premises are all true, as long as the argument is valid.

Deicide The killing of God.

De novo anew

Deontology A type of moral theory stating that morality consists in doing one's duty, rather than in considering the probable consequences of one's actions, in cases where duty and the promotion of good consequences come into conflict. Can be contrasted to consequentialism. An example of a deontological theory is Kantian ethics.

Dependent being A being whose existence is causally dependent on and explained by other things.

Determinism The theory that all events, including human actions and choices, are, without exception, totally determined.

Determinism, hard A kind of determinist view that rejects the compatibility of determinism and free will.

Determinism, soft The view that holds that determinism is true and that determinism is compatible with free will and responsibility.

Deus ex machina "God from a machine." An artificial or improbable device introduced to resolve an entanglement in a plot or argument. A person invokes a deus ex machina when introducing some contrivance to save a theory from some large problem.

Diallelus A vicious circle in a proof.

Diarchal Pertaining to a joint mode of government by two independent authorities.

Dilemma An argument that presents a choice between two alternatives.

Divine command theory The view that actions are right in virtue of being commanded by God.

Doxastic (From the Greek word, "doxa," for "belief.") Theories of justification that are doxastic are those that hold that a belief can be justified only by another belief.

Dualism Generally, the view that there are two kinds of stuff. More specifically, "dualism" is associated with the doctrine that mental states, events, or processes are distinct from physical or material states, events, or processes.

Dualistic interactionism The view that mental states, events, and processes can causally affect physical states, events, and processes.

Efficient cause The physical or mechanical cause of an effect or thing. Efficient causes are one of the four types of causes of Aristotle. Consider a table. For Aristotle, the "material" cause of the table is the material or stuff that the table is made of. The "formal" cause is the blueprint or shape that determines the form of the table. The "final" cause is the reason or purpose for which the table was built. The "efficient cause" is the actual agency or mechanical production of the table by the builder out of material. Efficient causation is often contrasted with "teleological" causation, causation that is the result of purposes or ends (Aristotelian "final" causes).

Egalitarianism A theory asserting equality among all people, usually political or economic.

Egoistic hedonism The theory that, in deciding how to act, a person ought to choose (among those acts open) the act that is likely to cause the greatest net balance of pleasure over pain for oneself.

Elective freedom The freedom to do, or to forebear from doing, one's duty. (See also rational freedom.)

Eliminative materialism The view that mental states and processes as we ordinarily conceive of them simply do not exist, in the same way as witches and phlogiston do not exist.

Empirical generalization A statement of the form: All Fs are Gs. For example, "All the coins in my pockets are pennies." Such generalizations need not express a tendency, disposition, or natural law.

Empirical hypothesis A kind of synthetic statement whose function is to sum up past experience and enable us to successfully predict or anticipate future experience.

Empiricism The theory that all our ideas come from experience and that no proposition

about an matter of fact can be known independently of experience.

Epicureanism From the views of the Greek philosopher Epicurus, 341-270 B.C. Epicureans advocated the pursuit of certain pleasures that bring tranquillity and freedom from mental anxiety in order to achieve happiness. In metaphysics, Epicurus was an atomist who attempted to avoid determinism by allowing for chance events due to the unpredictable "swerving" of atoms.

Epiphenomenalism The view that there is only one form of interaction between the mental and the physical, that in which the physical affects the mental. In this view, the mental can never affect the physical. The mind is not itself a material thing; rather, it is a distinct but causally impotent by-product (epiphenomenon) of the world of physics. This is a kind of dualism.

Epiphenomenon A mere by-product of a process that has no real effect on the process itself.

Epistemic Relating to knowledge.

Epistemology The theory of knowledge. The study of the origin, nature, and limits of knowledge, including especially the study of the nature of epistemic justification.

Equivocation A fallacy of argument whereby one uses an ambiguous word in more than one way.

Ergo therefore

Eros sexual longing or desire; love

Eschatology The development of theories relating to the end of life, as in Christian theology, or to the ultimate end of the cosmos.

Esoteric Intended only for people with special knowledge or interest. The opposite of "exoteric" (opinions or ideas suitable for the uninitiated).

Ethical altruism The theory that morality requires us to forget our own interests and selflessly devote ourselves to the interests of others.

Ethical egoism The view that to act morally, individuals should act solely so as to promote their own best interests. Ethical egoism is a moral view; it states a thesis about how humans ought to act. In this it differs from psychological egoism, which states a thesis about how humans always do act. An ethical egoist holds that people do not always act to promote their own well-being, even though they should.

Ethical naturalism The theory which claims that, despite appearances, moral facts really are natural, scientific facts.

Ethical nonnaturalism The theory which claims that there are no true naturalistic analyses of moral terms.

Ethical relativism See moral relativism.

Ethical skepticism The view that no moral knowledge is possible.

Ethical subjectivism See meta-ethical subjectivism and normative subjectivism.

Evolution The process by which something develops gradually from a different form. In biology, evolution is the origin and transformations of biological populations through time due to genetic variation and interaction with the environment, and not by special creation.

Ex hypothesi by hypothesis

Existentialism A loose-knit philosophical viewpoint connecting a rejection of determinism with a focus on the responsibility of the agent for making his or her own character out of his or her freely chosen actions. Existentialism rejects the rationalistic view of the universe as planned and comprehensible and consequently faces life with a feeling of dread and a sense of

the absurdity of life. Major existentialists are Kierkegaard and Sartre.

Ex nihilo out of nothing

Expected utility (EU) The utility of an uncertain outcome multiplied by its probability.

Fallacy A logical mistake in reasoning, especially one which often gives the appearance of being sound.

Falsifiable Refutable by experience. For example, if a theory predicts that an eclipse will occur on a certain day, then experience will refute the theory if the eclipse does not occur.

Freudianism and Creationism are often criticized as being unfalsifiable.

Fatalism The theory that all events are fated to happen; they would have happened no matter what the person involved might have done to avoid it. This is a stronger view than determinism.

Fideist A theist whose belief is based on faith rather than argument or reason.

Final cause The end, purpose, or goal for which something is working or moving; one of Aristotle's four causes. (See efficient cause.)

Freudianism Relating to the views of Sigmund Freud, 1856-1939. Freud developed an elaborate psychological theory focusing on sexual desires and the subconscious. For Freud, the ego is the

conscious self. The ego stands between the Id, which demands that basic sexual and physical desires be satisfied, and the superego, which represses the desires of the Id. Freud hypothesized that there exist a variety of repressive mechanisms responsible for neurotic behavior. Freud developed the therapeutic technique of psychoanalysis.

Functional equivalence Two systems are functionally equivalent when they do the same tasks or when they have the same capacities. (See strong equivalence.)

Functionalism Generally, the view that concepts should be defined according to their function. In cognitive theory, the view that mental states, events, and processes are "functional" states of the brain (or other hardware). Functional states of a device are those that are defined in terms of their relations to the device's input, its internal transitions, and its output. According to the functionalist, these causal relations and dispositions are what constitute the mental.

Gestalt A conception of organization based on the idea that a perceived whole is not just the sum of its parts. The parts are organized into structures and derive their character from the structure of the whole. Gestalt psychology denies the atomistic theory of perception whereby perceptions of patterns or wholes arrive from constructing the whole out of its independently existing parts.

Good will For Kant, a good will determines to act in accordance with universal moral law, regardless of the effects of the act in the world, selfish or otherwise.

Greatest happiness principle The utilitarian principle, put forth by John Stuart Mill, stating that actions are right in proportion as they promote happiness (pleasure) and wrong in proportion as they promote pain. (See utilitarianism.)

Hardware The physical apparatus that executes the software in programming a computer. The analog for an organism is its brain (often called its "wetware"). (See also software.)

Hedonism The view that pleasure is the ultimate good for humans.

Hedonism, universalistic The theory that in deciding how to act, I ought to choose (among those acts open to me) the act that is likely to cause the greatest net balance of pleasure over pain, counting my own interests as no less and no more important than everyone else's. The theory is universalistic because it considers everyone equally and hedonistic because it tells us to choose the act that will create the most pleasure.

Heuristics Rules of thumb which are useful generalizations for problem-solving tasks, such as "get your queen out early" in chess.

Hierophany Pertaining to the official expounding of sacred mysteries or ceremonies or the interpretation of esoteric principles.

Humanism Generally, any view in which human interests and welfare play a central role. More specifically, the theory that emphasizes reason, scientific inquiry, and human welfare, often rejecting the importance of belief in God.

Humanitarian theory of punishment The theory that the goal of punishment should be to mend or "cure" the offender, rather than to punish because he or she deserves it.

Hypothetical imperative An action that you should do if you want to promote some goal or end you already have. For example, if you want a good grade, you have a hypothetical imperative to study; if you want some chocolate ice cream, you have a hypothetical imperative to go to the store and buy some. Can be contrasted to a categorical imperative, which says that you should perform an action regardless of your ends.

Ideal morality Standards of moral excellence that a moral tradition or community sets up as models to aspire to and admire. Praise, honor, and respect are the rewards of those who live according to the standards of ideal morality. However, people are not in general blamed for failing to live up to the standards of ideal morality, or even for not aiming at them. (See practice morality.)

Idealism The theory that there are only immaterial minds and their mental "contents." The body itself is nothing but a collection of actual or possible sense-data-sights, sounds, touches, and smells. By holding that there is only mind and no matter, idealism avoids the problems of causal interaction between radically different kinds of substances.

Idealism, subjective The theory that matter is merely the projection of a finite mind and has no external, independent existence.

Identity theory A kind of materialism stating that mental events are simply identical to brain processes, the same way that lightning flashes are "identical" to electrical discharges. The mental event (a thought, desire, or sensation) is a brain process.

Ideology Any set of general ideas or system of beliefs that form the basis of an economic or political theory. The term is used pejoratively to characterize a person's set of beliefs as both false and as adopted to disguise or ignore the economic or political realities of the status quo.

Ignoratio elenchi The fallacy of irrelevance, that is, of proving a conclusion that is not relevant to the matter at hand.

Immaterialist One who believes that reality is not material. (See idealism.)

Immoralist One who rejects conventional morality, arguing that it is in his or her, or even our, best interests, and therefore rational, to act against the dictates of conventional morality.

Immutable Unchangeable.

Imperative Command. (See also categorical imperative; hypothetical imperative.)

Imperfect duty A duty that is not owed to any particular person or persons. For example, I have an imperfect duty to help alleviate poverty, but I do not owe it to any particular poor person to feed her, nor to each individual poor person. (See perfect duty.)

Impersonal evil Evil that is natural and not caused by human action—for example, natural disasters and disease. Even if humans were morally perfect, there would still be impersonal evil. (Also called nonmoral evil.)

Incompatibilism See determinism, hard.

Indeterminate Not fixed in extent or character. The truth value of a statement is

indeterminate when the relevant facts fail to determine whether the statement is true or false.

Indeterminism The view that some events are not determined.

Indeterminism, simple The theory that human action is not determined; rather, it is caused by inner volition.

Indubitable Incapable of being doubted; beyond all doubt. Descartes, for example, searched for indubitable truths to combat skepticism.

Inductive argument An argument whose premises establish a probability (rather than a certainty) that its conclusion is true; for example, if no one has ever seen a green flamingo, then there probably are no green flamingos. The argument from design is an example of an inductive argument.

Inductive inference An inference from evidence to hypothesis, where the evidence does not entail or necessitate that the hypothesis is true, but it is nevertheless reasonable to suppose that the hypothesis is true.

Inference The movement from premises to a conclusion. Inferences can be deductive or inductive.

In infinitum into infinity; endlessly

Innate idea An idea that we are born with inherited dispositions to have. Rationalism argues that human minds have the disposition to acquire concepts such as being, substance, duration, and even God, once a certain amount of experience is added.

Intentionality The property that some mental states have of being about something. Thus, one belief might be about Caesar's crossing the Rubicon, and another might be about the first person to orbit the Earth. By contrast, a mental state such as a free-floating anxiety need not be about anything in particular and thus not have intentionality.

Interactionism See dualistic interactionism.

Intertheoretic reduction See reduction.

Intrinsic good Something that is good in and of itself.

Intuition Direct knowledge or awareness of a truth or fact, independent of any reasoning process.

Intuitionism Any theory in which intuition is appealed to as the basis of knowledge.

Ipsa facto by that very fact

Justification In epistemology, knowledge is traditionally defined as justified true belief. To know *p* you must not only believe *p*, *p* must be true and your belief that *p* is true must be justified. Epistemologists disagree about the nature of justification. Some think that a belief is justified if it is caused in the right way or if it is based on another belief that counts as knowledge or if the agent can give reasons in defense of why she holds the belief, and so forth.

Kin altruism The disposition to favor the interests of one's near relatives (as distinct from one's own interests) over the interests of complete strangers. Such a disposition may have evolutionary advantages by increasing the probability that those who share many of the individual's genes will survive and reproduce.

Lamarckism In the philosophy of biology, the view that offspring may inherit the characteristics that their parents acquired during their adult lives. This view is no longer held to be credible.

Lexical order In John Rawls's theory of justice, the ordering of principles that requires us to satisfy the first principle before going on to consider the second principle; once the first principle is satisfied, we can go on to attempt to satisfy the second principle. (Also called serial order.)

Libertarianism In metaphysics, the theory that we possess free will and that our free will is neither determined nor the result of random chance, but instead the result of rational agency. In politics and economics, the theory that emphasizes the importance of personal liberty as opposed to state interference. Political libertarians often oppose taxation for social welfare programs as unjust intrusions into personal freedom.

Liberum arbitrium indifferentiae The freedom of indifference; the ability of the will to choose independently of antecedent determination.

Liturgy A fixed form of public worship used in churches.

Logically impossible Not logically possible.

Logically possible Consistent with the laws of logic. A statement is logically possible if it is true in at least one logically possible world: for example, that the next President of the United States is a woman. A statement is logically impossible if it is inconsistent with the laws of logic. A logically impossible statement is, or entails, a contradiction. For example, that some squares are round. Since squares are, by definition, not round, it is a contradiction to say that some squares are round.

Manslaughter The act of killing a person unlawfully but not intentionally or by negligence.

Marxism From the views of the German philosopher Karl Marx (1818-1883), on which communism is putatively based. Marxism rejects capitalism and predicts the development of society beyond capitalism through a revolution by the working class. Inherent to all forms of Marxism is the rejection of the exploitation of labor due to the private control of the means of production.

Materialism The view that everything-every object, state, event, and process-is a material object, state, event, or process and nothing else. According to materialists, there is no immaterial mind or soul and thus no problem of interaction between radically different kinds of substances. (Also called physicalism.)

Maxim A principle or rule of conduct.

Maximin strategy A principle of decision theory for choice under uncertainty. The strategy ranks the best decision as that which is superior to the worst outcomes of other possible decisions. The strategy "maximizes" the "minimum" outcome.

Mediately perceivable Perceivable indirectly, by means of something else.

Mendelian genetics The theory developed by Gregor Mendel (1822-1884) that the inheritance of any particular characteristic is controlled by the inheritance of genes, which occur in pairs and separate independently of each other in meiosis, a stage of cell division.

Mens rea The accompanying intention to commit a crime or pursue a wrongful aim which makes the act a crime.

Mentalism Originally, the term referred to idealistic doctrines such as Berkeley's, which held that only minds and their subjective states exist. In contemporary philosophy of mind, mentalism is the view that cognitive processes can be explained only by postulating a set of internal mental representations and rules that operate on the representations. (See artificial intelligence and computational theory of mind.)

Meta-ethical subjectivism The view that ethical judgments are neither true nor false, they are simply expressions of commands, preferences, or emotions, and as such are not eligible candidates for truth.

Meta-ethical theory A theory that focuses on whether normative theories can be justified

or true.

Metaphysics The study of the ultimate nature of reality. Common metaphysical views are materialism, idealism, and dualism.

Methodicide The death or killing of method or methodology.

Methodist Epistemologists who first answer the question, How are we to decide whether we know? What are the criteria of knowledge? and then use their answer to go on to answer the question, What do we know? What is the extent of our knowledge? A methodist is the opposite of a particularist.

Methodological behaviorism See behaviorism, radical.

Modus ponens In logic, an argument of the following form: If P then Q.

P.

Therefore Q.

Modus tollens In logic, an argument of the following form: If P then Q.

Not-Q.

Therefore Not-P.

Monism The view that reality is ultimately made up of only one kind of thing. Idealism and materialism are two different monistic theories. Can be contrasted to dualism, which holds that there are two kinds of things: mind and body.

Monotheism Belief in one, and only one, God.

Moral equivalence The idea that everyone's ultimate moral views are as plausible as everyone else's.

Moral evil Evil that is caused by human action, rather than natural causes such as earthquakes. If humans were as morally perfect as God, there would be no moral evil.

Morally infallible Unable to make mistakes in moral matters.

Moral relativism The view that the "truth" of moral judgments is always relative to a given system of beliefs that itself cannot be proven correct.

Mutation Change or alteration in form.

The Myth of Gyges The story in Plato's Republic that is meant to show that injustice is in our self-interest; Gyges found a ring of invisibility

that allowed him to act unjustly and reap the benefits. Plato argues against the immoralist's challenge presented by the Myth of Gyges in the rest of the Republic.

Naive realism See realism, naive.

Narcissism A tendency to self-worship. An excessive or erotic interest in one's own personal features.

Naturalism (1) The view that the universe is self-existent, self-explanatory, and self-operating, requiring no supernatural or spiritual cause or explanation. (2) The view that nature does not require a teleological explanation; scientific laws are adequate to cover all phenomena.

Necessary being A being whose existence depends on nothing else and who necessarily has to exist. Some people have argued that God is such a being. (See also contingent being.)

Necessary condition If A is a necessary condition for B, then B cannot be true unless A is true. For instance, being alive is a necessary condition for going golfing. If you are dead, you cannot golf. (See sufficient condition.)

Negligence Lack of proper care or attention; carelessness.

Nonmaleficence Not injuring others.

Nonmoral evil See impersonal evil.

Normative Having to do with norms or standards; regulative. In ethics, norms are standards for right conduct.

Normative subjectivism The view that ethical judgments can be true or false, but that their truth depends entirely on whether they accurately report the sentiments of those who issue the judgments.

Normative theory A theory that attempts to specify conditions under which an action is morally right or wrong.

Objective Something that is objective has a particular nature that is not dependent on us or our judgments of it. For example, those who hold that there are objective moral truths believe that such truths are there for us to discover and hold regardless of any of our beliefs or judgments.

Occasionalism A kind of dualism stating that mind and body do not really interact. Being kicked does not cause my pain; rather, it is the occasion for God, whose infinite nature somehow encompasses both mind and matter, to cause me to feel pain. Similarly, my mental states are occasion for God to cause my body to act.

Omnipotent All-powerful; able to do anything.

Omniscient All-knowing.

Ontological argument An a priori argument for the existence of God stating that the very concept or definition of God automatically entails that God exists; because of the special nature of the concept, there is no way that God could fail to exist.

Ontology The theory of being, or of existence. From the Greek *ontos* (being) and *logos* (theory, account).

Ontophany The appearance of being; the manifestation of existence.

Original contract In social contract theories, the hypothetical contract that establishes the fundamental principles of justice and/or structure of society, to which all rational, normally self-interested persons would agree in entering society.

Original position In John Rawls's contractarian theory of justice (contractarianism), the original position is the hypothetical gathering of people in a condition of equal power and ignorance for the purpose of determining fair principles of justice for society. (See veil of ignorance.)

Orthodox Beliefs that are declared by a group to be true and normative. Heresy is a departure from and relative to a given orthodoxy. Of or holding correct or conventional or currently accepted beliefs, especially in religion.

Paradox of hedonism This paradox is that the singleminded pursuit of happiness is necessarily selfdefeating, for the way to get happiness is to forget it; then it may come to you. If you aim exclusively at pleasure itself, with no concern for the things that bring pleasure, then pleasure will never come. One must first desire something other than satisfaction to achieve satisfaction.

Paradox of omnipotence Can an omnipotent being make things which he subsequently cannot control, or make rules which bind himself? For example, can God create a rock so heavy that even He cannot lift it? On the one hand, it seems as though he should be able to, since he is, by definition, able to do anything. But if he did make a rule that bound himself which he could not violate-it seems as though he would not still be all-powerful.

Parallelism A kind of dualism stating that mind and body only appear to interact because

of a kind of "preestablished harmony" between them, like two clocks independently striking at the same moment. Thus, because of this harmony, when I kick the table, I also feel pain; the kicking does not cause the pain.

Particular A specific example of a class of things, rather than the class itself or that which defines the class. An individual rather than a universal.

Particularist Epistemologists who first answer the question, What do we know? What is the extent of our knowledge? and then use their answer to go on to

answer the question, How are we to decide whether we know? What are the criteria of knowledge? A particularist is the opposite of a methodist.

Pascal's wager Blaise Pascal's argument that we should believe in (or "bet on") God because the stakes are infinitely high on the side of God. The rewards for believing correctly and the penalties for wrongly not believing are high, and the costs of believing mistakenly are low. (Also called a wager argument.)

Passive euthanasia Mercy killing that involves the medical staff's decision, in conjunction with the patient, to allow the patient to die.

Paternalism Governing as though a benevolent parent-figure.

Patriarchy The domination or government of a social structure or institution by the fathers or male elders.

Pedagogy The art of teaching.

Perceptron A device designed by Frank Rosenblatt in the 1950s to understand perceptual recognition tasks. A perceptron consists of three layers of connected units—an input layer, an associative layer, and an output layer. Additional layers of units can be added to further complicate the device.

Perfect duty A duty that is owed to a particular person or persons. For example, I have a perfect duty to my banker to repay my loan and to every person not to lie to them. (See imperfect duty.)

Personal identity The problem of explaining what constitutes both the identity of a person at a time and the identity of a person through time.

Petitio principii See begging the question and circular reasoning.

Phenomenalism The theory that our only knowledge of reality is mind-dependent; the phenomena we experience are the only objects of knowledge. Phenomenalists may affirm or deny the existence of a reality of things-in-themselves behind the phenomena.

Phenomenology A descriptive study of subjective processes such as consciousness, feelings, emotions, and so on. The study of "what it is like" to be in a certain mental state. (See qualia.)

Physicalism (1) Materialism. (2) The theory that every object, state, event, or process can be completely described and explained by the physical sciences. And we are to understand that some things in the physical sciences are not material—for instance, gravitational fields and electromagnetic radiation. According to this use of the term, one could believe that physicalism is true but materialism is false.

Physicalism, token A version of physicalism that contends that being in a mental state (process, etc.) always involves being in a physical state (process, etc.). This allows for the possibility that there might be different physical states for different thinking beings. For instance, adding $2 + 2$, for a human being might involve certain electrical activity in neurons located in certain areas of the brain; but adding $2 + 2$ for a computer, might involve electrical activity in silicon chips.

Physicalism, type A version of physicalism that denies that it is possible for different thinkers to have the same kind of mental state without being in the same kind of physical state. Thus, in this view, a person and a computer could both be said to be adding $2 + 2$ only if there were some physical process that they were both in at the same time.

Platonism The philosophy of Plato stating that the particular, individual things we see are merely imperfect "copies" of perfect, unchanging, universal forms.

Polytheism Belief in more than one God.

Posit To assume that something is true without argument, either because it is a self-evident truth or merely as an arbitrary assumption.

Possible world A complete state of affairs, and so the actual world is itself a possible world. Complete states of affairs distinct from the actual world are ways the actual world might have been. Complete states of affairs that are consistent with the laws of logic are logically possible worlds. Complete states of affairs that are consistent with both the laws of logic and the laws of nature are physically or causally possible worlds.

Postulate A self-evident truth or fundamental principle.

Practice morality The standards of conduct actually expected of, and generally practiced by, persons living within a given moral tradition or community. The part of morality concerned with requirements, those standards for which people are blamed, criticized, or punished for failing to live up to. See ideal morality and supererogation.

Pragmatic Of or pertaining to practical considerations.

Pragmatism The theory that the meaning or value of concepts should be understood in terms of their practical consequences.

Predicate That which is said of a subject.

Predominant egoism The claim that as a matter of fact the egoistic or self-interested motivations of human behavior tend to override their altruistic or other-regarding motivations until they have achieved a satisfactory level of security and well being. (See altruism and psychological egoism.)

Premise In an argument, the reasons that are given to support the conclusion.

Prima facie at first appearance

Prima facie duty A self-evident duty, such as promise keeping, which we are required to act upon if no other, more weighty, duty intervenes.

Primary qualities Intrinsic characteristics of a physical object itself, such as solidity, extension in space (size), figure (shape), motion or rest, and number. Primary qualities are ones that objects would continue to possess even if there were no perceiving beings in the world, for they are inseparable from the material object and found in every part of it. (See also secondary qualities.)

Principle of sufficient reason (PSR) For everything that happens there must be a sufficient reason for its happening and not some other thing.

Privation The condition of a substance that lacks a certain quality which it is capable of possessing and normally does possess. Loss or lack of something.

Problem of evil Problem posed for theists: If God is all-good, omnipotent, and omniscient, how can his existence be compatible with the existence of evil?

Program A sequence of instructions, in some computer language, that causes a physical apparatus (hardware) to perform some task or sequence of operations.

Projectible property When past instances of a property are a guide to predictions about future instances of a property. For example, if every raven I have seen is black, then it is

reasonable to predict that future ravens will be black. But if every raven I have seen is alive in the twentieth century, it does not follow that it is reasonable to predict that future ravens will be alive in the twentieth century. Being black is a projectible property of ravens; being alive in the twentieth century is not.

Propositional calculus (logic) Systems of logic that concern themselves with how statements can be combined-using such connectives as "and," "or," "if then," and "not"-into more complex statements and with the logical properties possessed by such statements.

Prudential reasonableness When an act conforms to the norms of rationality that govern the selection and performance of actions.

Psychological egoism A theory about the psychology of humans stating that the only thing anyone is capable of desiring or pursuing ultimately (as an end in itself) is one's own self-interest. According to psychological egoism, people always act selfishly. If someone appears to act altruistically, that person is doing it only because taking the interests of other people is the means to promoting his or her own good; genuinely disinterested acts of benevolence do not exist. (See also ethical egoism.)

Psychological egoistic hedonism A common form of psychological egoism stating that our only kind of ultimate desire is to prolong our own pleasure and reduce our own pains.

Punitive Inflicting or intending to inflict punishment.

QED which has been demonstrated

Qua As; in the character or capacity of. For example, your duties qua student are different from your duties qua friend.

Qualia The qualitative feels of mental experiences: the hurt of pain, the color of red, the taste of wine, the scent of a rose, the longing of love, the ecstasy of an orgasm. The qualitative character of an experience is "what it is like" to have that experience. (See phenomenology.)

Ratiocination The process of logical reasoning.

Rational freedom The freedom that a person has to the degree that her will is led by moral principles. (See also elective freedom.)

Rationalism The theory that there are innate ideas and that certain general propositions (usually called necessary, or a priori, propositions) can be known to be true in advance of or in the absence of empirical verification.

Rawls, John, (1921-2002) American moral and political philosopher, author of *A Theory of Justice*, 1971.

Realism The theory that the objects of our knowledge have an independent existence rather than being mind-dependent.

Realism, naive The theory that primary and secondary qualities are both strictly part of physical objects and that both can exist quite independently of perceiving minds.

Realism, representative The theory that our ideas are faithful representations of the real, external world.

Realism, sophisticated The theory that physical substances and their primary qualities can exist independently of perceiving beings and only the secondary qualities are mind -dependent.

Reciprocity A relation of mutual exchange.

Reductio ad absurdum A method of demonstrating that a proposition is false by showing that its truth, along with other accepted propositions, would entail a logical contradiction.

Reduction One theory (Tr) reduces to another theory (T2) when the propositions and principles of the first are entailed by the second, then apply to the same cases, but the second theory does not contain some items (such as "light" or "belief") from the first. These items in Tr

have been reduced to something else in T2. (Also called intertheoretic reduction.)

Reify To treat a concept or idea as a thing. Reification is the philosophical mistake of treating a concept, abstraction, convention, or artificial construct as if it were a real natural thing.

Relativism In general, the doctrine that truth is relative to the standpoint of the individual or of the community or culture.

Relativism, cultural Relativism about values stems from the fact that the values or ethical principles of individuals vary widely. Cultural relativism holds that most disagreements about values or ethical principles stem from enculturation in different ethical traditions. Cultural relativism need not entail moral relativism.

Relativism, moral The view that the truth of moral judgments is relative to the judging subject or community. We ought to do that, and only that, which we think we ought to do. The having of an opinion about what we ought to do, individually or collectively, makes it true that that is what we ought to do.

Repentance The feeling of regret about what one has done or failed to do.

Res cogitans (Latin, "thinking thing") Used by Descartes to refer to the mind.

Result theories of punishment See utilitarian theories of punishment.

Retributive theory The theory of punishment stating that the primary justification of punishment is the fact that a committed offense deserves punishment, rather than any advantage gained through punishment.

Rule utilitarianism The view that the standards of conduct should be those which, if widely adopted, would lead to the greatest overall utility.

Secondary qualities Those qualities of an object (such as color, taste, smell, sound, warmth, and cold) that exist (according to some theories) only when actually sensed and then only "in the mind" of the one who senses them. (See also primary qualities.)

Self-existent being A being whose existence is not dependent on other things, but rather is accounted for by its own nature.

Self-presenting That which is directly evident to an agent. Thoughts are self-presenting if to have them is to think that you have them. So if I believe that Socrates is mortal, then if my belief is selfpresenting it will be the case by that very fact that it is evident to me that I believe that Socrates is mortal.

Semantics The study of the meanings of words.

Serial order See lexical order.

Skepticism The position that denies the possibility of knowledge. A skeptic might hold that no knowledge of any sort is possible or might confine skepticism to a particular field such as ethics.

Social contract theory The theory that grounds political obligations in a hypothetical social contract to which all rational, normally self-interested persons would agree in forming a society.

Sociobiology The study of the social behavior of animals, especially the role of behavior in survival and reproduction.

Software Computer program (set of instructions) that can be loaded and executed on computer hardware.

Sophism A piece of deceptive reasoning characteristic of the ancient Greek Sophists.

Sophisticated realism See realism, sophisticated.

Sophists Wandering teachers in ancient Greece who claimed to teach people (for a fee) how to achieve political success. Socrates objected to the way in which they argued; they would

use tricks to win the argument and would argue for anything, regardless of its truth.

Sound An argument is sound if it is valid and its premises are true.

Species chauvinism The limitation of mentality and consciousness to animals physically similar to human beings, to the exclusion of machines and, perhaps, silicon-based life forms.

Speciesism The view that species-membership is in itself a morally relevant trait.

Spinoza Dutch Jewish Rationalist (1632-1677). He held that God is immanent in the world, and individual things are modes or modifications of God.

State of nature A phrase used to describe the situation (either historical or hypothetical) in which human beings live without government.

Stoicism To be stoic is to be calm and not excitable, bearing difficulties or discomfort without complaining. A school of philosophy founded by Zeno of Citium c. 300 B.C.

Strong equivalence Two systems are strongly equivalent if they are not only weakly equivalent but also produce the same outputs (given the same inputs) in the same way-that is, their internal functionings are the same. (See weak equivalence.)

Subjective idealism See idealism, subjective.

Subjectivism (1) The view that all knowledge is limited to the nature of objects as known through human experience, rather than objectively in themselves; it is impossible for us to transcend human subjectivity. (2) In ethics, the view that no objective moral truths exist; moral judgments are based on the subjective emotional or mental reactions of the individual or community.

Substratum That which underlies all an object's attributes or qualities and of which the attributes are predicated.

Sufficient condition If A is a sufficient condition for B, then given that A is true, B is true as well. For instance, it is a sufficient condition for being alive that you are golfing. If you are golfing, then it follows that you are alive.

Summum bonum From the Latin for the supreme good. The summum bonum is the ultimate end of human action, the worth of which is intrinsically good (good in and of itself).

Supererogation An act that would be good to do, but not wrong not to do; it is "above and beyond the call of duty." An example might be throwing yourself on a live grenade to save your friends.

Syllogism A logically valid argument containing a conclusion entailed by a major premise and a minor premise. See, e.g., modus ponens and modus tolens.

Synthetic statement The opposite of an analytic statement. A synthetic statement is true partly in virtue of the meanings of the words used to express it, but also by the nature of things. A synthetic statement can be known a priori; for example, the statement that every event has a cause; or a synthetic statement can be known a posteriori; for example, snow is wet.

Tabula rasa A blank tablet. Empiricists hold that the mind at birth is a tabula rasa; it awaits experience and has no innate ideas.

Tautology A statement of logic that is true under any assignment of truth values to the constituent parts of the statement. For example, either p or not p, as in it is either raining here now or it is not raining here now.

Teleological argument Inductive argument for the existence of God that cites purported examples of design in nature as proof for the existence of a designer who is God. (Also called argument from design.)

Teleology The view that there is a purpose or goal to the universe; from the Greek telos (goal, end) and logos (theory, account).

Theism The view that God (or gods) exist.

Theodicy An attempted justification for the existence of God despite the existence of evil.

Theogony An account of the origin of the gods.

Theology The study of God-his nature and his relation to the world.

Theoretical entities Usually contrasted with observational entities. As the terminology suggests, observational entities can be observed by the senses, but theoretical entities are postulated to explain observable phenomena. The distinction between observation and postulation is difficult to draw.

Theoretical terms The opposite of observational terms. Observational terms are the terms of a scientific theory that refer to objects that can be observed by the senses. Theoretical terms refer to the objects putatively postulated by a theory to explain the existence and nature of observed entities. The distinction between theoretical and observational terms is notoriously difficult to draw.

Theory of agency The view that although human behavior is caused, not every chain of causes and effects is infinite; some causal chains begin with agents themselves.

Truth tables A method of tabulating how the truth of constituent propositions of a statement in a propositional calculus determines the truth of the complex proposition.

Turing machine Despite its name, it is not a machine but a kind of mathematical system that can be viewed as plans for a device for executing programs or other sequences of instructions. Turing machines are very restricted in that they can do only a limited number of basic things (such as read a 0 or a 1, write a 0 or 1, move left one step, move right one step). However, they are very flexible and can be programmed to do anything any computer can do-at least, if given enough time and memory.

Two-way interactionism The commonsense assumption that mind and body interact causally.

Type physicalism See identity theory.

Type-token relations (for behavior) Relations that determine how to categorize a particular output in the vocabulary of behavior-for example, "In raising his arm, he was signaling that he knew the answer."

Ultimate cause The goal or purpose toward which a thing acts or moves.

Universal A general concept rather than a particular individual; that which is definitive of a class of individuals.

Universalistic hedonism The view that places priority in achieving the greatest happiness for the greatest number.

Universalizable Capable of being applied universally, to everything or everyone.

Utilitarianism The moral theory stating that individuals should choose the act, among those available to the agent, that is likely to create the greatest amount of happiness and the least amount of

pain. Each person's (and perhaps each animal's) pleasures and pains are to count equally; you may not count your own pleasures and pains more (or less) than anyone else's. (See greatest happiness principle.)

Utilitarian theories of punishment These theories hold that punishment is at best a necessary evil, justifiable if and only if the good of its consequences (its social utility) outweigh its own immediate and intrinsic evil. Punishment is an evil inflicted upon a person for the sake of greater future goods such as correction or reform of the offender, protection of society, and deterrence.

Valid An argument is valid if its conclusion follows logically from its premises.
Arguments are either valid or invalid, premises and conclusions are either true or false.

Veil of ignorance In John Rawls's contractarian theory of justice, the veil of ignorance is what keeps the people in the (hypothetical) original position from knowing the facts (such as their race, gender, talents, and social position) about their own condition that could bias their decisions. (See original position.)

Vengeance theory of punishment, emotional version The view that the justification of punishment is to be found in the emotions of hate and anger, allegedly felt by all normal or right-thinking people, that it expresses.

Vengeance theory of punishment, escape-valve version The theory that legal punishment is an orderly outlet for aggressive feelings that would otherwise demand satisfaction in socially disruptive ways.

Vengeance theory of punishment, hedonistic version The view that the justification of punishment is the pleasure that it gives people to see the criminal suffer for his or her crime.

Volition The act or capacity of willing or choosing.

Voluntariness The quality of having been freely chosen by an agent without compulsion or any other sort of excuse (such as insanity or intoxication) that might make the choice less than free.

Wager argument See Pascal's wager.

Weak equivalence Two systems are weakly equivalent if they both produce the same output, given the same input.

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'It should be noted that both the empiricist and rationalist are "rationalists" in the wider sense of the term—that is, as opposed to fideism, romanticism, or irrationalism. Both can support rational inquiry as the sole road to truth, but they differ in their conceptions of what rational inquiry is, particularly regarding the role that sense experience plays in it.

2 From Arthur W. Burks, "Preface," *Values and Morals: Essays in Honor of William Frankena, Charles Stevenson and Richard Brandt*, edited by Alvin Goldman and Jaegwon Kim (Dordrecht: D. Reidel Publishing Co., 1978), p. xiii.

3 David Hume's usage was somewhat narrower. In the *Treatise of Human Nature*, his earlier, more formal exposition of the views included here, Hume explains that he will use the word "impression" to mean "all our sensations, passions and emotions, as they make their first appearance in the soul." By "ideas" he means "the faint images of these in thinking and reasoning."

'A number of distinguished philosophers, theologians and scientists, including Pierre Gassendi, Thomas Hobbes, and Antoine Arnauld, were invited to comment on the manuscript of Descartes' *Meditations* before it was published. Their "Objections" were then forwarded to Descartes, who in turn composed "Replies," and published the whole exchange along with the original work. The entire discussion is strongly recommended to the serious student of Descartes' philosophy.

2 Strictly speaking, the traditional mind-body problem was generated by a conjunction of

two theories: (1) dualism as defined above, and (2) the theory sometimes called two-way interactionism, the latter being simply the commonsense assumption that mind and body can interact causally, sometimes mental events causing bodily events, as in volition, sometimes bodily events causing mental events, as when a decayed tooth causes pain sensations.

3Materialism as the name of a philosophical theory should not be confused with various other senses of the word. Philosophical materialists are not(necessarily) "persons who tend to give undue importance to material possessions and comforts." Nor are they (necessarily) "those who think that everybody ought to put their "material well-being" (as measured in dollars and cents) above all other considerations." A philosophical materialist could, with consistency, denounce materialism in these other senses.

'Speaking more strictly, definitions 1-6 are "roughly equivalent" to one another, and definitions 7 and 8 are "roughly equivalent" to one another, although one should be aware of subtle differences even within these classes. Basically, there are two types of definitions: those in terms of prior sufficient conditions and those in terms of predictability.

2R. E. Hobart, "Free-Will as Involving Determinism and Inconceivable Without It," *Mind* 43 (1934).

3Not to be confused with the political theory of the same name, which advocates a minimal state and argues that all laws, except those necessary to vindicate citizens' moral rights, are unjustified.

*[i.e., accurately conveying the truth]

