

# Informal Philosophy

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AVRUM STROLL

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For Mary

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# Introduction

## I: FORMAL AND INFORMAL PHILOSOPHY

From around the turn of the twentieth century, the founders of symbolic logic had a profound effect on subsequent philosophical practice. They saw the combination of logic and science as a model that philosophy should emulate. Bertrand Russell (1872–1970) described it as a “scientific philosophy, grounded in mathematical logic.” This combination of logic and science has dominated philosophical practice for more than a century now, and is especially prominent in the United States. But it also has exhibited influence in the United Kingdom, Canada, and Australia. Timothy Williamson, for example, in a *laudatio* for Ruth Barcan Marcus held in Switzerland in 2008 emphasized the importance of logic for philosophy.

The central methodological advantage that analytic philosophy enjoys over all other forms of philosophy, past and present, is the rigorous framework of formal logic within which it can conduct its inquiries.

An outlook similar to Russell’s in its stress on the importance of science is to be found in the works of other contemporary philosophers. Paul Churchland writes in the revised edition to his *Matter and Consciousness*:

A central conviction of the first edition was that issues in the philosophy of mind are not independent of the theoretical and experimental results of the

natural sciences. That view has not changed. But developments in the sciences have. This new edition attempts to make some of the more striking of these results accessible and intelligible to a wider audience. Their philosophical significance, as I see it, lies in the support they tend to give to the reductive and eliminative versions of materialism.<sup>1</sup>

I will call views such as those of Russell, Williamson, and Churchland “formal philosophy,” in order to distinguish it from the proper subject of this book, that is, “informal philosophy.”

Informal philosophy rejects the formalist approach. It does so for various reasons, perhaps the most important of which is that philosophical problems, such as whether there is freedom of the will or whether anyone can ever really know what is going on in the mind of another, do not arise from logical or scientific factors and cannot be resolved by an appeal to formalist methods. Informal philosophy embodies at least three features: (i) It emphasizes common sense, (ii) it often appeals to ordinary discourse, and (iii) it employs what I shall later describe as “the method of cases.” In this book these three features frequently overlap. Informalism regards philosophy as an autonomous discipline and therefore as different from science, literature, history, cultural anthropology, psychology, or linguistics.

The three chapters that follow will be devoted to distinguishing common sense from ordinary language, and the method of cases from both. They are mostly concerned with two major and seemingly insoluble epistemological problems: our knowledge of the external world, and other minds. I attempt to show that the techniques used in informal philosophy not only illuminate the conceptual sources of these problems, but also point the way or ways to their resolution. In the last chapter, I extend the method to moral questions, taking abortion as an exemplar of how informalism can cast light on that controversial subject, but also how it can resolve some of the main conceptual obstacles that divide the defenders of pro-life and pro-choice positions. I shall also argue that such an approach has produced insights that differ from the findings of science about the nature of reality yet are equally valid. Because nearly all of this book will be devoted to a description of informal philosophy, and its capacity to resolve difficult issues, I begin by discussing what it opposes, that is, formal philosophy. Whereas

most practitioners today still agree with its precepts, I will offer a different prescription about how to do philosophy.

## II: SCIENCE AND PHILOSOPHY

From the time of the ancient Greeks to the present, philosophy has been impressed by the power of science to give an accurate account of the world's basic features. This was especially true after Newton's seminal work at the end of the seventeenth century. Even the skeptic, David Hume, said that his ambition was to be the Newton of philosophy. It is thus not surprising that the subtitle of his 1739 *chef d'oeuvre*, *A Treatise of Human Nature*, is *Being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects*. But science at the beginning of the twentieth century had an even more powerful impact. In nearly every area it was highly innovative, giving rise to new understandings of the macroscopic and subatomic worlds. Many humanists, including philosophers, thought it to have significant consequences for their particular disciplines.

In 1897 J. J. Thomson showed that the atom, hitherto thought to be indivisible and to be the smallest piece of matter, was composed of still smaller particles. In 1913, Niels Bohr theorized that the atom was a tiny version of the solar system. It had a center or nucleus around which electrons rotate in orbits not dissimilar to those of the planets. About the same time, scientists were concerned about the broader universe and made conjectures about its fundamental properties. In the special theory of relativity of 1905, Albert Einstein demonstrated that mass and energy are equivalent, a thesis embodied in the famous equation  $E = mc^2$ . The theory also dealt with the nature of light—holding that its velocity was constant and remained unaffected in any spatial context. Special relativity was followed in 1916 by an even more powerful theory, general relativity, in which Einstein argued that massive bodies such as the Earth and the Sun cause space to curve, and that such curvature is the source of the gravitational force. Astronomy and cosmology were also burgeoning with new ideas about the age and size of the cosmos. At the end of the nineteenth century, the universe was thought to be several hundred million years old, but on the basis of new evidence that figure was soon revised to fifteen billion. Not much later, Edwin Hubble's observations of the red shift of galactic light established that the universe is expanding and not static as Einstein had supposed.

### III: THE NEW LOGIC

Around the same time, philosophy was exhibiting an exciting development that changed its face for the remainder of the century. This was the development of mathematical (also called “symbolic”) logic. Its inventor was the German mathematician, Gottlob Frege (1848–1925). His book, *Begriffsschrift*, that contained the first expression of the new logic, was published in 1879, an event that the Oxford historian of logic, William Kneale, has called “the most important date in the history of the subject.”<sup>2</sup> Coupled with the creative movements in science, the new logic has had a momentous effect on philosophical practice. For the rest of this introduction, I shall therefore concentrate on its impact.

*Begriffsschrift* attempted to demonstrate that arithmetic is reducible to logic. Frege was dissatisfied with the reaction of the German mathematical community, which basically ignored the book. He therefore began a two-volume study—*Grundgesetze der Arithmetik*—that contained a clarification of his earlier work as well as new material. As the title indicates, it was directed toward the same end. In 1900, Bertrand Russell began to study the first volume of *Grundgesetze* that had been published in 1893, and discovered that the system was inconsistent. He wrote to Frege just before the second volume was projected to appear, and Frege was crestfallen. He tried to repair the defect, but was not successful.<sup>3</sup> It meant that his life’s work had failed. As he wrote in a postscript to volume 2, dated October 1902:

Hardly anything more unfortunate can befall a scientific writer than to have one of the foundations of his edifice shaken after the work is finished.

This was the position I was placed in by a letter of Mr. Bertrand Russell, just when the printing of this volume was nearing its completion. It is a matter of my Axiom (V). I have never disguised from myself its lack of the self-evidence that belongs to the other axioms and that must properly be demanded of a logical law. And so in fact I indicated this weak point in the Preface to Vol. I (p. vii). I should gladly have dispensed with this foundation if I had known of any substitute for it. And even now I do not see how arithmetic can be scientifically established, how numbers can be apprehended as logical objects and brought under review, unless we are permitted—at least conditionally—to pass from a concept to its extension. May I always speak of the extension of a concept—speak of a class?

And if not, how are the exceptional cases recognized? Can we always infer from one concept's coinciding in extension with another concept that any objects that falls under the one falls under the other likewise? These are the questions raised by Mr. Russell's communication.

*Solatum miseris, socios habuisse dolorum.* I too have this comfort, if comfort it is; for everybody who has made use in his proofs of extensions of concepts, classes, sets, is in the same position as I. What is in question is not just my particular way of establishing arithmetic, but whether arithmetic can possibly be given a logical foundation at all.

But let us come to the point. Mr. Russell has discovered a contradiction which may now be stated.

Nobody will wish to assert of the class of men that it is a man. We have here a class that does not belong to itself. I say that something belongs to a class when it falls under the concept whose extension the class is. Let us now fix our eye on the concept: *class that does not belong to itself*. The extension of the concept (if we may speak of its extension) is thus the class of classes that do not belong to themselves. For short we will call it the class K. Let us now ask whether this class K belong[s] to itself. First, let us suppose that it does. If anything belongs to a class, it falls under the concept whose extension the class is. Thus if our class belongs to itself, it is a class that does not belong to itself. Our first supposition thus leads to self-contradiction. Secondly, let us suppose that our class K does not belong to itself; then it falls under the concept whose extension it itself is, and thus does belong to itself. Here once more we get a contradiction.

Russell's discovery about the attribution of self-reference to K—the class of all classes that are not members of themselves—(now generally known as “Russell's paradox”) caused Frege to abandon his project. He never worked on the problem again. But his original writings nonetheless influenced the subsequent course of logic. In particular they affected the authors of *Principia Mathematica* (1910–1913), Alfred North Whitehead (1861–1947), and Russell, who produced a three-volume work of nearly 2,000 pages, in which they solved the inconsistencies of *Grundgesetze* by means of the theory of types.

With respect to foundational questions, Russell's contributions were so significant that historians tend to lump Frege and Russell together as the creators of this sort of logic. Although there had been anticipations of symbolic logic among the ancient Stoics, their efforts never reached the level of sophistication that Frege and Russell achieved. Indeed, the logic that dominated philosophy

from the time of Aristotle until the nineteenth century was scholastic (syllogistic) logic. One of the West's greatest philosophers, Immanuel Kant, declared shortly before his death in 1804 that logic, as traditionally practiced, was a completed subject and that nothing could be added to it. A half-century later he was decisively proven to be wrong. Today scholastic logic has virtually disappeared from the curriculum in major universities and logic, as taught in such institutions, is now mostly mathematical logic.

The authors of *Principia Mathematica* had several important aims. Like Frege, they wanted to show that arithmetic, or more generally, mathematics, was reducible to logic. They did this by demonstrating that certain fundamental mathematical concepts can be reduced to propositions containing only logical notions, such as constants, quantifiers, variables, and predicates. This, following Frege, though with some differences, they called the "logistic thesis."

Another of their aims was to show that the symbolism of *Principia* was a formal language that could capture the large variety of inference patterns and idioms found in ordinary speech. They thus hoped to prove that logic could solve several classical problems of long standing, such as why the ontological argument is fallacious or why an atheist is not contradicting himself in asserting that God does not exist. In demonstrating the relevance of logic to ordinary discourse, Whitehead and Russell also wished to show how vague expressions could be made more precise and how sentences that played important roles in these problems could be disambiguated in such a way as clearly to expose the basis of the equivocation.

The latter purpose was brilliantly realized in their theory of definite descriptions, a doctrine that applies to sentences whose subject terms lack a referent, such as "The present king of France is not bald." They showed that this sentence could be read either as saying "There exists at present a king of France who is not bald" or as saying "It is false that there presently exists a king of France who is bald." The distinction is clearly expressed in the symbolism of *Principia*:  $[(\exists x) (KFx. \neg Bx)]$  and  $[\neg (\exists x) (KFx. Bx)]$ . The first sentence is false because it asserts that a French king now exists, adding that he is not bald, whereas the second is true because it denies that anything is now a French king and is bald. The difference is to be accounted for in terms of the scope of the negation sign. In the first sentence it applies only to the predicate and in the second to the whole sentence.



Both Frege and Russell developed versions of the theory of descriptions that differ in fundamental ways; but their views overlapped in holding that certain collections of words can be significant even when they fail to refer.

Such impressive achievements made a strong case for the notion that *Principia* contained an ideal language for solving seemingly irreparable conceptual problems. In the second lecture of “The Philosophy of Logical Atomism,” Russell gave a general description of such a “logically perfect” language.

I propose now to consider what sort of language a logically perfect language would be. In a logically perfect language the words in a proposition would correspond one by one with the components of the corresponding fact, with the exception of such words as “or,” “not,” “if,” and “then,” which have a different function. In a logically perfect language there will be one word and no more for every simple object, and everything that is not simple will be expressed by a combination of words, by a combination derived, of course, from the words for the simple things that enter in, one word for each simple component. A language of that sort will be completely analytic, and will show at a glance the logical structure of the facts asserted or denied. The language which is set forth in *Principia Mathematica* is intended to be a language of that sort. . . . Actual languages are not logically perfect in this sense, and they cannot possibly be, if they are to serve the purposes of daily life.<sup>4</sup>

Russell contended that the range of application of *Principia* to philosophical issues was at least as great as any of the natural languages, and moreover, because of its perfect clarity, lacked their disadvantages. Frege had a similar aim. In various works he stated that ordinary language can be used to express emotions and certain nuances of meaning but that it was inadequate for a system of demonstrative science. Unlike Russell, who saw formal language as an extension and perfection of ordinary speech, Frege believed that there is a basic incompatibility between the two and that for what he called “scientific” investigations ordinary language is to be avoided.

Whitehead and Russell thought that the dual goals of an ideal language for the analysis of ordinary discourse and for proving the logistic thesis were compatible. In pursuing the latter thesis, they assumed they were at the same time pursuing the former. Let us look at these twin aims, beginning with the logistic thesis.

#### IV: THE LOGISTIC THESIS

Russell met the Italian mathematician, Giuseppe Peano, at an International Congress of Mathematicians in Paris, in 1900, and was impressed by the originality and the power of his work on foundations, and by the clarity of the symbolism he used, which they adopted for *Principia*. The inconsistency that Russell had discovered in *Grundgesetze* did not exist in Peano's system. By rejecting axiom (V) in *Grundgesetze*, and by proposing his theory of types, he was able to solve Frege's difficulties. The theory of types stated that a formula,  $p$ , could not be substituted for a variable,  $x$ , in a formula,  $q$ , unless the variable,  $x$ , was of the appropriate type. It thus excluded an English sentence like "All rules have exceptions" as being included in the set of rules that have exceptions. The theory of types enabled Whitehead and Russell to develop a system free of that particular inconsistency, but it had difficulties of its own and is no longer widely accepted. In solving Frege's problem they believed they could prove a broader thesis than that which Frege had attempted to demonstrate in *Begriffsschrift* and *Grundgesetze*, namely that all of mathematics and not just arithmetic can be reduced to logic.

The natural numbers (1, 2, 3, 4 . . .  $n$ ) are the essential ingredients of all of mathematics, and are based on five postulates formulated by Peano in 1889 and 1895. Here are the postulates:

1. Zero is a number.
2. The successor of any number is a number.
3. No two numbers have the same successor.
4. Zero is not the successor of any number.
5. If any property is possessed by zero, and also by the successor of any number having that property, then all numbers have that property.

In *Principia*, Whitehead and Russell set themselves the goal of proving the logistic thesis from a set of primitives and five axioms as a base (and with *modus ponens* as a principle of inference that allows the detachment of any  $q$ ). In the process, they created a series of calculi (formal subsystems) of growing degrees of richness; and at the end of the process they claimed to have proved the logistic thesis. Whether they were ultimately successful is a matter of controversy, since they used problematic principles, such as the "axiom of reducibility" and the "axiom of infinity" in their derivation. Those who rejected

the axiom of infinity, such as Frank Ramsey (1903–1930) and L. E. J. Brouwer (1881–1966), tried to develop a kind of logic in which only finite and no transcendental methods would be permitted.

The concept of richness was to play an essential role in Kurt Gödel's proof in 1931 that a logical system sufficiently rich to entail number theory would be incomplete. He demonstrated that in a language,  $L$ , of that degree of richness, it would be possible to construct a well-formed formula (in modern logic, abbreviated as wff) that can be proved to be true and also would not be a theorem of  $L$ , if  $L$  is a consistent system. This result is sometimes called Gödel's "first theorem" and is distinguished from a related thesis, namely that the consistency of a formal system adequate for number theory cannot be proved within the system. This corollary is sometimes referred to as "Gödel's theorem," but more often as "Gödel's second theorem." Moreover, he proved that it would be impossible to develop another system having other axioms and rules, and sufficiently rich to derive number theory that would be complete. In 1936 Gerhard Gentzen (1909–1945), a mathematical genius who was to die of starvation at the end of World War II, proved the consistency of Peano's axioms.

Gödel's first proof entails that the ideal long entertained by logicians of providing an axiomatization of the whole, or even of a considerable part, of pure mathematics has to be abandoned. This limitation on the scope of the axiomatic method is considered the most important theorem in twentieth-century logic, and a major contribution to mathematics in general.

The creation of these calculi had a second important consequence that was more philosophical than mathematical. Whitehead and Russell showed that the theorems of the different calculi correspond to the different sorts of sentences and to the inference patterns that exist in ordinary speech. For instance, the constituents of the propositional (later to be called "the sentential") calculus are declarative sentences, such as "The street is wet," and "Philadelphia is a city." Various transformations are effected on combinations of these sentences (or propositions) through the use of the axioms and *modus ponens*. The results of these operations are *compound* sentences that are necessarily true. In the *Tractatus*, Wittgenstein was to call them "tautologies." The law of simplification is an example of such a theorem. In the notation of *Principia* it is  $((p.q) \supset p)$ . What it states in English is that if both  $p$  and  $q$  are true, then  $p$  is true.

The axiomatic method that Whitehead and Russell used in *Principia* has a long history that can be traced back at least to Euclid (fl.c. 300 B.C.). At the time that *Principia* was written, it was the only method that could be used for proof theory. In 1935, Gentzen introduced a new method for this purpose that he called “natural deduction.” It makes the method of proof much simpler and would have saved Whitehead and Russell an enormous amount of labor had it been available then. They projected a fourth volume for *Principia* which they never completed due to what they described as mental exhaustion. They had originally estimated that it would take about a year to finish the three volumes but in fact it took about a decade. It led Russell to say that the amount of labor required for proving *Principia*’s large number of theorems, by “constructive methods,” was one of the reasons he was never able to do any seminal work thereafter. (This remark was an underestimation. He wrote some books and articles after 1913 that are still considered original and of interest today.)

My own introduction to logic was via *Principia*. I took a course at Berkeley from the late Paul Marhenke. It was long after Gentzen had developed natural deduction, but Marhenke had the idea that his students, all undergraduates, should share some of the intellectual difficulties encountered by Russell as he tried to prove certain theorems. I recall one theorem in chapter 20 that I worked on arduously for almost a month and finally gave up, unable to prove it. Using natural deduction, the proof would have been both easy and quick. For most logicians today, the axiomatic method is primarily of historical interest, and it is natural deduction that governs present practice.

## V: SYMBOLIC AND SYLLOGISTIC LOGIC

It is interesting to compare and contrast the logical system of *Principia* with that of scholastic logic. The latter was a logic of terms. Each term was taken to denote a class, such as the class of men, the class of mortals, and so on. (Socrates was interpreted as a class containing only one member.) *Principia* provides a separate calculus (the functional calculus) for classes, that deals not only with the concept of inclusion as scholastic logic in effect did, but also with the notion of membership in a class, a notion not found in the earlier logic. For scholastic logic, there were only four canonical sentences—“All S is P”; “No S is P”; “Some S is P”; and “Some S is not P.”—whose English equiv-

alents would be, “All men are mortal”; “No men are mortal”; “Some men are mortal”; and “Some men are not mortal.”

*Principia* encompassed these differing types of sentences in its system, but went well beyond the capacity of the older logic. Sentences like “Jones and Smith were acquainted” (that scholastic logic had difficulty in accommodating) belong to the calculus of relations and those like “the first president of the United States was Washington” (with which scholastic logic had even more difficulty) are part of the calculus of descriptions. Through these ascending calculi the system of *Principia* became progressively richer and arrived at the point where the natural numbers could be expressed wholly in logical terms.

## VI: LOGICAL ATOMISM

Apart from its relevance in solving specific problems, mathematical logic had a broader significance, giving rise to three formalist philosophies that dominated much of the past century: the Logical Atomism of Russell and the early Wittgenstein; the logical positivism that originated in Vienna after World War I and continued as a major force for the next three decades; and Quine’s naturalized epistemology which began in the late 1940s and has lasted, with trailing residues, until today.<sup>5</sup> I will confine my remarks to Logical Atomism.<sup>6</sup>

According to Russell, the logical theory he had earlier advanced in his *Principles of Mathematics* implies a certain metaphysics, and it was this that he called “Logical Atomism.” He describes the kind of logic he had developed in that monograph in the following passage:<sup>7</sup>

As I have attempted to prove in *The Principles of Mathematics* when we analyze mathematics we bring it all back to logic.<sup>8</sup> It all comes back to logic in the strictest and most formal sense. In the present lectures, I shall try to set forth in a sort of outline, rather briefly and unsatisfactorily, a kind of logical doctrine which seems to me to result from the philosophy of mathematics—not exactly logically, but as what emerges as one reflects: a certain kind of logical doctrine, and on the basis of this a certain kind of metaphysic. The logic which I shall advocate is atomistic, as opposed to the monistic logic of the people who more or less follow Hegel. When I say that my logic is atomistic: I mean that I share the common-sense belief that there are many separate things: I do not regard the apparent multiplicity of the world as consisting merely in phases and unreal divisions of a single indivisible Reality.<sup>9</sup>

In this citation, Russell is contrasting the “atomistic” (i.e., symbolic) logic he advocates, with the “monistic” (essentially, scholastic) logic of the nineteenth century British followers of Hegel. Like Russell, they thought that the logic they were committed to had important philosophical implications: that it implied a kind of idealism about the nature of the universe. Their philosophy insisted that reality is wholly mental and that it constitutes a totality (the Absolute) whose parts are internally and necessarily related to one another and cannot be separated without distortion. One implication of this form of idealistic monism is that there are no facts that can be individuated and singled out from a holistic background, and accordingly that no statement is either wholly true or wholly false unless it is about the Absolute. Insofar as the notions of truth or falsity can be applied to individual pronouncements, they are at most partially true or partially false.

It was these latter implications that Russell, influenced by G. E. Moore, refused to accept.<sup>10</sup> Instead, he claimed that his form of atomistic logic presupposed that the universe is made up of discrete facts and that these are composed of individual objects. Such discrete facts are the “atoms” that form the basic units of the metaphysical system that, he believes, is implied by mathematical logic. Such facts can be separated from any holistic background; and propositions about them are either true or false in a straightforward sense of those terms.

Russell’s Logical Atomism is a classical metaphysical theory that seeks to give a synoptic account of reality. Unlike many metaphysical theories whose proponents offer accounts that are at variance with the actual or potential findings of science, Russell is cautious about proposing anything that even in principle would run counter to science. In his 1924 essay, “Logical Atomism,” he says that science has a much greater likelihood of being true than any philosophical theory, including his own. He puts the point this way:

This brings me, however, to a question of method which I believe to be very important. . . . What shall we regard as having the greatest likelihood of being true, and what as proper to be rejected if it conflicts with other evidence? It seems to me that science has a much greater likelihood of being true in the main than any philosophy hitherto advanced (I do not, of course, except my own). . . . We shall be wise to build our philosophy upon science, because the risk of error in philosophy is pretty sure to be greater than in science. . . . The business of philoso-

phy, as I conceive it, is essentially that of logical analysis, followed by logical synthesis. . . . Philosophy should be comprehensive and should be bold in suggesting hypotheses as to the universe which science is not yet in a position to confirm or confute. But these should always be presented *as* hypotheses, not (as is too often done) as immutable certainties like the dogmas of religion.<sup>11</sup>

This passage clearly gives science priority over philosophy. It also raises a general question that has bedeviled philosophy ever since: If science can answer all factual questions about the real world, what is there left for philosophy to do? In the four chapters that follow this introduction, I provide an answer to the question. Russell's response differed. He thought that there are questions about certain fundamental features of the universe—for example, whether there are facts, and if so, what they are, that philosophy is uniquely competent to answer. I draw discriminations that he was not aware of not only between different sorts of facts, such as institutional facts that must be distinguished from scientific facts, but also about the capacity of informal philosophy to tell us important things about reality. I think it will be of interest to the reader to compare the two views.

Russell's main thesis in *The Lectures on Logical Atomism* is that a logical investigation of the sort he proposes demonstrates that the fundamental features of the world—that he calls facts—are *obvious* and *truistic*. As he writes in Lecture I:

I propose, therefore, always to begin any argument that I have to make by appealing to data which will be quite ludicrously obvious.<sup>12</sup>

A few sentences later, he added:

The first truism to which I wish to call your attention—and I hope you will agree with me that these things that I call truisms are so obvious that it is almost laughable to mention them—is that the world contains *facts*, which are what they are whatever we may choose to think about them, and that there [are] also *beliefs* which have reference to facts, and by reference to facts are either true or false.<sup>13</sup>

These remarks echo those in G. E. Moore's "A Defense of Common Sense." For Moore the propositional ingredients of what he calls "The Common Sense

View of the World,” such as “The earth exists” and “The earth is very old” are both “obvious” and “truisms.”<sup>14</sup>

Russell’s metaphysical system takes facts to be part of the ultimate furniture of the world, and to be mind-independent. He thus contrasts facts and beliefs, which he thinks depend on the existence of minds. If there were no sentient beings there would be no beliefs and no truth or falsity. There would still, however, be facts, since these are part of the objective world and are independent of any form of mentation. The metaphysic that he thinks is implied by mathematical logic is dualistic in contrast to the monism of his Idealist contemporaries. It consists of two separate realms, the world of fact and the world of belief. Logical Atomism is thus a theory about the objective world of fact and the capacity, via language and thought, to describe it.

Here is his account of what he takes facts to be:

When I speak of a fact—I do not propose an exact definition, but an explanation so you will know what I am talking about—I mean the kind of thing that makes a proposition true or false. If I say “It is raining,” what I say is true in a certain condition of weather and false in other conditions of weather. The condition of weather that makes my statement true (or false as the case may be) is what I should call a “fact.”<sup>15</sup>

The connection between a formal language and an objective reality is via a double relationship: between propositions that correspond to facts and when they do are true, or when they don’t are false. Names provide a second connection to the world; they mandate that if something is a genuine proper name, there must exist a corresponding object that it denotes. This is a wholly different tie to reality than the propositional bond. Nonetheless, there is a connection between these linguistic units, since names are among the essential components of propositions.

Russell’s metaphysics is an exploration of the relationship between facts and particulars and how a perfect logical language mirrors these objective features. An important thesis in this connection is that facts are never particulars and vice versa. He says: “When I speak of a fact I do not mean a particular existing thing, such as Socrates or the rain or the Sun. Socrates by himself does not render any statement true or false.” Propositions are true when there is an isomorphism (a one-to-one correlation) between the arrangement of its constituents, such as names, and the objects they refer to in the world.



A logically perfect language will make it evident that *facts* are complex and that *particulars* are their constituents. In describing this relationship, he is speaking about the external world. A logically perfect language will also reveal that some particulars are simple (i.e., not further analyzable) and that these are the ultimate building blocks of the complex structures that are facts. Russell emphasizes that both facts and particulars belong to the objective, external world and are to be discriminated from beliefs and the linguistic units that allow human beings to think and talk about them.

Declarative sentences express propositions. These describe facts and are made true (or false) by facts. Names, in contrast, denote particulars, and the concepts of truth and falsity do not apply to them.

The emphasis on facts in *The Philosophy of Logical Atomism* is extensive and complex; it is the central topic of four of its eight lectures. One of its important classificatory schemes is that between atomic (or singular) facts and general facts. The distinction, for Russell, is important; he argues that it is impossible to have a complete description of the universe without mentioning general facts. "Suppose you had succeeded in chronicling every single particular fact throughout the universe . . . you will still not have a complete description of the universe, unless you also added: 'These that I have chronicled are all the particular facts there are.'"

In addition to general facts, there are positive and negative facts. There are also atomic facts of both varieties that attribute a predicate to a particular. In addition, he distinguishes atomic propositions from atomic facts. "Jones is white" is an atomic sentence; if true, it expresses a proposition that describes a fact—that Jones is white. Russell denies that there are molecular facts, such as "Jones is white and this piece of turf is green." It is language which suggests such a construction. But the world contains the fact that Jones is white, and also a quite different fact, "This piece of turf is green." Each fact is atomic and not molecular. The logic of *Principia* deals with molecular *propositions* (theorems) that are composed of true atomic propositions that describe atomic facts.

Another distinction Russell draws is between propositions and names. About this distinction he says:

It is very important to realize . . . that *propositions are not names for facts*. It is quite obvious as soon as it is pointed out to you, but as a matter of fact I never

had realized it until it was pointed out to me by a former pupil of mine, Wittgenstein. It is perfectly evident as soon as you think of it, that a proposition is not a name for a fact, from the mere circumstance that there are two propositions corresponding to each fact. Suppose it is a fact that Socrates is dead. You have two propositions: "Socrates is dead," and "Socrates is not dead." And those two propositions corresponding to the same fact, there is one fact in the world which makes one true and one false. That is not accidental, and illustrates how the relation of proposition to fact is a totally different one from the relation of name to the thing named. For each fact there are two propositions, one true and one false, and there is nothing in the nature of the symbol to show us which is the true one and which is the false one. Both are equally essentially logical relationships which may subsist between the two, whereas in the case of a name, there is only one relation that it can have to what it names. A name can just name a particular, or if it does not, it is not a name at all, it is a noise. It cannot be a name without having just that one particular relation of naming to a certain thing, whereas a proposition does not cease to be a proposition if it is false.<sup>16</sup>

As this passage clearly brings out, Russell asserts that names have a special relationship to the objects they name. They require the existence—either present or past—of the things they name.<sup>17</sup> Such things he calls "particulars." As he says: they are "the only kind of word that is theoretically capable of standing for a particular. Proper names = words for particulars. Df." It follows from this definition that many of the so-called "names"—"Odysseus," "Hamlet"—we employ in daily language are really abbreviations for descriptions, since the objects they purport to name have never existed, do not at present exist, and will not exist in the future. "Hamlet" is thus an abbreviation for a longer description: "The name of the main character in an eponymous play by Shakespeare."

Russell also argued contra Frege that proper names have no meaning in an intentional sense (i.e., express a concept or have *Sinne*, as Frege claimed). For Frege, a proper name like "Plato" could have many different *Sinne* or senses in everyday discourse. It could mean: "the teacher of Aristotle," "the author of the *Meno*," or "the most famous disciple of Socrates." But this analysis, according to Russell, leads to a problem. According to Russell, the sentences containing such descriptions, are general sentences. But if all sentences were general sentences, then there would be no way that they could connect to the world of fact, and logic could not be said to be a discipline concerned with truth. That it is

so concerned—as Frege agreed—means for Russell that there must be singular sentences; and if they are to be true, must be meaningful. They can only be meaningful if their denoting constituents—proper names—are meaningful. Logic thus mandates that there must be singular sentences, composed of terms—mainly names—that denote particulars that have existed or now exist.

Logical Atomism is Russell’s metaphysics: a theory that “emerges as one reflects” on the relationship between mathematical logic and objective reality. The theory of descriptions is a crucial component of the theory. If one translates an English sentence into the notation of *Principia* one can identify its essential structure and accordingly its real meaning. It is a consequence of this view that the sentence, “The present King of France is wise,” that contains the description “The present King of France” is not really a singular sentence as Latin grammar would indicate. Rather, it is to be analyzed as a composite of three general sentences, one of which asserts the existence of a present monarch of France. Accordingly, Latin grammar is misleading as to its actual structure and meaning. For that kind of grammar, it is a singular sentence, whose subject term is “the present King of France.” But mathematical logic regards this account as mistaken, and gives an entirely different analysis of the sentence.

Because it contains a description, it will never be a singular sentence, and hence will never be a true identity sentence like “Venus is Venus.” This is why “The author of *Waverley* is identical with the author of *Waverley*” is not an identity sentence. In any true identity sentence “is” must be flanked by proper names, as in “Venus is Venus.” Russell offers an argument from logical theory in support of this thesis. “Venus is Venus” has the logical form  $(Ia)$ , where “I” denotes identity and “a” is a logical constant, that stands for the name, “Venus.” The sentence  $(Ia)$  entails via the law of existential generalization  $(\exists x)(Fx)$ . To put the point in English, “Venus is identical with Venus” entails that something exists that is identical with itself.

But if we replace “a” by a descriptive phrase, for example, by “the greatest natural number,” we would turn a law of logic into a falsehood, since the formula would entail that the greatest natural number exists. Russell thus argues that if we are allowed to replace proper names (constants) by descriptions we would turn a logical law, existential generalization, that holds universally, into a falsehood. Accordingly, no such substitution is permissible. It follows that no sentence containing a description will mirror those basic features of the world

that Russell labels “atomic facts.” Those facts are reflected only in the atomic sentences of a perfect logical language; and these are all singular sentences. Logical Atomism is thus a metaphysical construction concerning an isomorphic relationship between language, meaning, and the world of fact.

After mobilizing a number of adherents, Logical Atomism began to lose its appeal and has virtually disappeared today. At least two factors were responsible for its eclipse. The earlier of these was Logical Positivism, a philosophy created by a group of intellectuals (*Der Wiener Kreis*), whose members were influenced by mathematical logic and the exciting scientific developments that were taking place in the early part of the twentieth century. Their interest in science led them eventually to a form of empiricism, deriving from Locke and Hume. They also applauded Hume’s deflationary remarks at the end of *An Enquiry Concerning Human Understanding*.

If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask: *Does it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matter of fact?* No. Commit it then to the flames; for it can contain nothing but sophistry and illusion.

Hume’s remark that “metaphysics” contains nothing but sophistry and illusion was enthusiastically welcomed by them, and became emblematic of how they thought of any humanistic discipline not based on science. A.J. Ayer expressed the attitude of the Vienna Circle when he said in *Language, Truth and Logic*:

The traditional disputes of philosophers are, for the most part, as unwarranted as they are unfruitful . . . we may begin by criticizing the metaphysical thesis that philosophy affords us knowledge of a reality transcending the world of science and common sense.<sup>18</sup>

According to the logical positivists, metaphysics was nonsense, and since Logical Atomism was admittedly a metaphysical theory, it was rejected by all proponents of positivism.

A second factor in the elimination of Logical Atomism was a paper by the Oxford don, P. F. Strawson, “On Referring,” that originally appeared in *Mind* in 1950.<sup>19</sup>

Strawson's essay totally demolished Russell's theories. He argued that Russell and other logical atomists conflated denoting with referring, did not distinguish meaning from referring, and failed to discriminate the grammatical forms of linguistic units (names, phrases, and sentences) from their referential, ascriptive, and statement-making uses. Strawson pointed out that it is human beings who use such linguistic units to mention particular places and persons and things, and to make statements about them. It is a mistake to think that words or sentences have these uses. Meaning, he argued, is a property of linguistic expressions. For example, "the present king of France is intelligent" has the same meaning in all contexts. Its meaning is a function of the meaning of its lexical constituents. However, it can be used on various occasions by speakers to refer to or mention or say something about different individuals.

When the individuals being referred to exist (when, say, a speaker in the seventeenth century used those words in speaking about Louis XIV) that person was making a statement that was either true or false. If said today, when France has no king, the same words are neither true nor false, and no statement is being made. It is a condition of their significant use that certain criteria must be satisfied before a string of words can be used by somebody on a particular occasion to make a statement. Russell and other logical atomists concentrated on linguistic units *per se* instead of their uses; and this was a mistake. Strawson's attack on Logical Atomism was generally accepted by philosophers as well-founded and became one of the main factors in the demolition of Russell's view.

## VII: METAPHYSICS AND EPISTEMOLOGY

Russell's sharp distinction between the world of discourse and the world of fact inevitably raises an epistemological question. If these two realms are distinct, then how does one obtain accurate information about the objective world of fact? Metaphysics has traditionally been dedicated to describing the fundamental ingredients of the world. Logical Atomism is a good example of that outlook. Epistemology, in contrast, is concerned with how we obtain knowledge of those ingredients. Epistemology thus follows metaphysics as spring follows winter. Russell was much influenced by Descartes, and indeed is a kind of Cartesian in his epistemology. According to Descartes, and Russell who follows in that tradition, the problem arises from a particular conception

of evidence. Both of these thinkers believed that the only source of evidence about “external reality”—that is, about the world that is independent of any form of sentience—was sense experience. They both regarded sense-experience as consisting of sensations that are produced by the five senses—seeing, hearing, touching, tasting, and smelling. They also assumed that such sensations are mental, subjective in character, hidden from others by the skin, and directly accessible only by their proprietors. There is thus a gap between the world of sensation and the world of fact.

In consequence, two immediate epistemological difficulties, which in their diverse forms are generally referred to as *The External World Problem*, arise for those who hold such a view. The first is that we might have all the sensations we normally have, but that nothing external corresponds to them. This is a radical form of skepticism that Descartes attempted to refute in his *Discourse on Method*, and in *Meditations On First Philosophy*. The other problem assumes that there are external objects, but that our information about them is indirect and hence probable only. This, for many commentators, is a mitigated form of skepticism, consistent with the scientific attitude that we never have certainty about the world but at most only some degree of probability.

This latter position was adhered to by Russell. He believed that epistemology should be consistent with the findings of science about the natural world. But even with this commitment, his view about science was measured. As he said in a passage I quoted earlier, science has the *likelihood* of being more true than any philosophical view. But in defending science against philosophy, and in speaking of its “likelihood” of being true, he is acknowledging that scientific discoveries are probable only, and never certain.

Although Russell’s philosophical views changed radically during his long career, he was reasonably consistent in the theory of perception. Most of the time he vacillated between forms of representative realism and phenomenalism. Representative realism is the theory that in normal cases of perception one’s apprehension of external objects is always mediated by the sensations one has. Thus, when one sees an apple, the last event in that process is the product of a complex set of optical and neural processes. Light is reflected off the surface of the apple, and is transmitted through air, which contains particulate matter, and is eventually processed by the human visual system. One never sees an external object *directly*, that is, as the object really is, but only as

mediated by processes that ultimately include the eye, the retina, the optic nerve, and the brain. The result of such mediation is a sensation which produces an image of the object.

According to this position, it is possible that our visual sensations may fail to represent the world as it actually is. The theory is realistic in the sense that it posits the existence of external objects. Its task is not to prove, as more radical forms of skepticism demand, that external objects exist, but rather to explain how observers can obtain accurate information about them, given the nature of the intermediation created by light and the other factors mentioned. Representative realism was generally construed to be the theory that a scientific optics supports; and Russell probably adopted it for that reason. It is sometimes called “the causal theory of perception,” because light bouncing off an object produces a causal sequence whose last event is called “seeing.”

The other position that Russell was attracted to is *phenomenalism*. This view was designed by its proponents to eliminate the “gap” between the external world and the sensations that the senses produce. It is too complicated to explain fully in this introduction, but briefly it holds that so-called “external objects,” such things as tables, chairs, and other persons, are nothing but heaps of sensations. Russell, adopting the terminology that most theorists of that time espoused, called such sensations “sense-data.” When one looks at a table, one sees an object having a certain color, shape, and size and that it is either in motion or standing still. What one sees in such a case is a set of sense-data. The thrust behind phenomenalism was thus to eliminate the supposed gap between the sensations one has and the so-called “external object.” In this view, a table for example, was nothing but a heap of actual and possible sensations. To spell out the concept of possibility that Russell advocated was to say that if one walked into a room containing a table, one would see a heap of sense-data, a composite of shapes and colors.

Russell’s idea that philosophy should adopt the methods and conceptions of science has never lost its appeal, and even though Logical Atomism was rejected by most theorists, many of them found the combination of science and symbolic logic to be a model that their investigative activities should imitate. The formalist approach has dominated analytic philosophy ever since.

I will now explore an alternative to that way of doing philosophy.<sup>20</sup>

## NOTES

1. Paul Churchland, *Matter and Consciousness* (Cambridge, Mass.: MIT Press, 1988), viii.
2. See W. and M. Kneale, *The Development of Logic* (Oxford: Clarendon, 1962), 511. Kneale added another comment about Frege's work, saying: "It is no exaggeration to say that the use of quantifiers to bind variables was one of the greatest intellectual inventions of the nineteenth century" (511).
3. For example, see Quine "On Frege's Way Out," in *Mind* (1955): 145–159.
4. R. C. Marsh, ed., *Logic and Knowledge* (London: Allen & Unwin, 1956), 197–198.
5. I am referring to such neo-Quineans as Steven Stich, Paul Churchland, Patricia Churchland, and Hilary Putnam, *inter alios*.
6. I do so because of space limitations; for a fuller, but still all too brief discussion of logical positivism and Quine's philosophy, see my *Twentieth-Century Analytic Philosophy* (New York: Columbia University Press, 2000).
7. For an excellent discussion of *Principles*, see P. W. Hylton, *Russell, Idealism, and The Emergence of Analytic Philosophy* (Oxford: Clarendon, 1992).
8. This passage was written in 1918, long after the publication in 1903 of the *Principles of Mathematics*. *Principles* was a preliminary study for *Principia Mathematica* which Russell later coauthored with Whitehead. As the quotation indicates, *Principles* claims that *all* of mathematics is a subbranch of logic. It thus contains a generalization of Frege's thesis in *Grundgesetze* about arithmetic.
9. Bertrand Russell, in *Logic and Knowledge*, R. C. Marsh, ed. (London: Allen & Unwin, 1956), 178.
10. See chapter 1 on Moore's defense of common sense in the present volume. Moore clearly influenced Russell in this respect.
11. Russell, in *Logic and Knowledge*, 339–341.
12. Russell, in *Logic and Knowledge*, 182
13. Russell, in *Logic and Knowledge*, 182.
14. See my discussion of Moore in chapter 1 of this study.
15. Russell, in *Logic and Knowledge*, 182



16. Russell, in *Logic and Knowledge*, 187–188.

17. In our book, *Much Ado about Non-Existence: Fiction and Reference* (New York: Rowman and Littlefield, 2007), A. P. Martinich and I call this assumption “the axiom of existence.” We argue that it has pernicious implications in the philosophy of language. Ruth Marcus and Saul Kripke, who are committed to a Russellian semantics, adopt slightly different versions of the axiom.

18. A. J. Ayer, *Language, Truth and Logic*, second ed. (New York: Dover, 1948), 33.

19. It has been widely reprinted, with some changes. For example, see *Essays in Conceptual Analysis*, A. Flew, ed. (London: Macmillan, 1960), 21–52.

20. As far as I know, the discussion of informal philosophy that follows has no exact counterpart in the history of philosophy. For example, my discussion of the role of intermediaries in generating and in resolving the external world problem is, I believe, unique. In saying this, I am not implying that a large number of philosophers have not developed similar or overlapping views. I am much indebted to many precursors—among whom I include J. L. Austin, G. E. Moore, Ludwig Wittgenstein, Gilbert Ryle, Norman Malcolm, O. K. Bouwsma, Henry Alexander, Zeno Vendler, and to many contemporaries: A partial list includes Daniele Moyal-Sharrock, Kevin Mulligan, A. P. Martinich, Nicholas Rescher, Michael J. White, Alastair Hannay, Gunnar Skirbekk, Leonard Linsky, Stanley Cavell, and John Searle.



# Common Sense

## I: ITS ORDINARY MEANING

Let us therefore begin by an examination of the role of common sense in dealing with conceptual issues. It is important to distinguish what some philosophers have said about common sense from the most familiar use or uses of the notion. G. E. Moore (1873–1958) who is perhaps the most distinguished representative of the common sense tradition in twentieth century analytic philosophy gave a careful, synoptic account of common sense, developing a theory that he called “The Common Sense View of the World.” Because of its historical importance, I shall discuss his views in detail in what follows. It will be seen that Moore is capturing something that is part of common sense in the way that most ordinary people understand it, while extending it and giving it a philosophical gloss. To see how his view at once captures part of the meaning of this idea and yet diverges from it, I shall try first to explain what ordinary speakers of English mean by this notion.

In what is perhaps its most familiar use, “common sense” is a synonym for “good judgment” or what some call “horse sense.” In that employment, common sense advises that it is unsafe for elderly women to walk alone at night in some areas of big cities, and that one should proceed with caution when driving in heavy fog. In this use, common sense is mostly concerned with practical matters; it emphasizes the importance of good judgment for avoiding harm and for living well. Good judgment, based on experience, suggests that

one should move cautiously in such contexts. It is also the notion of good judgment that will play an important role in my depiction of informal philosophy. Moore's idea of the common sense view of the world is that it consists of propositions all of which, as he says, are "wholly true." In its everyday employment, in contrast to what Moore says, common sense is a mixed bag of ideas, some of which are propositions, some of which are flatly true and some of which have some measure or degree of truth—partial truths, so to speak—others are rules of thumb, and still others are advice of how to deal with problematic situations. Moore is driven to his particular conception in opposition to prevailing forms of philosophical idealism and radical skepticism, whereas common sense in its ordinary uses has no such theoretical aim.

Common sense often has a skeptical tinge as well. Not skepticism in a radical philosophical sense—that is, the sort of conception that Moore opposes—but doubt about all sorts of things, such as the promises made by politicians while running for an office, or the claims advanced by automobile salesmen or the suitors for somebody's hand. Even in this pre-technical, mildly skeptical form, common sense can have fruitful applications in opposing a philosophical theory. Some philosophers, anticipating such applications, have built into their views considerations designed to undercut common sense. Here is an example. A celebrated fifth century B.C. Greek philosopher, Parmenides, held a view that common sense, even in this mitigated sense, would reject. On the basis of powerful logical arguments, he arrived at the conclusion that motion does not exist, about as strange a thesis as philosophy has ever produced. What was particularly odd is that he generated this contention while walking around, followed by a bevy of disciples. Since they and he could clearly see that he was traversing a fairly large amount of space while speaking, he added a feature to this view that was designed to neutralize the impact of common sense. This was the idea that the senses are illusory. So that the motion ordinary people claim to see can be discounted as misleading. He believed, instead, that only reason can be trusted and that logic should override sense-experience. This was one of the first instances of a radical form of rationalism, a doctrine that has had many adherents since his time. Plato, Anselm, Descartes, Spinoza, and Leibniz were all rationalists who believed that one can attain knowledge of the world on the basis of reason alone.

Parmenides had a compelling point to make, but he fallaciously generalized it. It is correct that we cannot always trust sense-experience; but he inferred

from this principle that we can *never* trust it, which was a mistake. Common sense agrees that the five senses—seeing, touching, smelling, hearing, and tasting—can give rise to erroneous information. One who is color blind, for instance, does not see the world in the same way as most of us. Magicians make a living by proving that the hand is quicker than the eye. If one holds an English language book up to a mirror the print runs backward and cannot be read. Similar illusions exist with respect to tasting, hearing, smelling, and touching. Common sense recognizes that the five senses can be thought of as double agents. They play both sides of the knowledge game, sometimes being on the side of veridicality and sometimes not. But even granting such anomalies, common sense assumes that most of the time the senses can be relied on and that indeed one can generally distinguish special situations, where mistakes are likely, from normal circumstances, where they are not. There are also situations in which one must suspend judgment. But this is not to say that the senses can never be counted on, as Parmenides insisted. That is going too far.

## II: SKEPTICISM AND COMMON SENSE

It is a genuine historical curiosity that skepticism and dogmatism, two diametrically opposed views, should both have accepted the Parmenidean analysis of sense-experience. Skeptics generally have assumed that the only possibility of acquiring knowledge about matters of fact is via sense-experience. A good example is the Dream Hypothesis of Descartes. Descartes described a situation in which a person was experiencing the sensation of being seated before a fireplace and yet was dreaming and was thus not aware of a fireplace at all. Radical skeptics presuppose that because the senses can never be relied on—a proposition that common sense does not accept—the acquisition of knowledge by human beings is impossible.

Skepticism does not arise from an emphasis on individual cases of misleading experience. Instead, it generalizes. Its position seems to be that if the *source* of knowledge is tainted one can never be sure of its products. There is a parallel principle in modern American law, namely that if the tree is poisoned one cannot trust its fruit. It follows that one can never know whether a given sensation is misleading or not and accordingly that perpetual doubt is the only possible answer.

Plato agreed with Parmenides in denigrating the value of sense-experience; but unlike the skeptics, he believed that knowledge and certainty were attainable.

But he differed from Parmenides in denying that sense-experience was always illusory. Instead, he contended that the senses only allowed access to what he called “the world of appearance,” a world falling short of reality. Accordingly, he argued that one must use reason to transcend the world of appearance and to grasp what he called “forms,” unchanging abstract entities that constitute reality. His view is thus ultimately a form of rationalism.

Plato differed from Parmenides in yet another respect. Although he proffers reasons for thinking that the senses cannot produce knowledge, the arguments he advances are less than rigorous and depend on questionable assumptions. It is otherwise with Parmenides, who (as we shall shortly see) argues his implausible case with compelling clarity. For many commentators Plato’s philosophy rests on a vision about the nature of reality and less on strict argumentation. It is true that Plato gives reasons to explain why the senses fail to generate knowledge. His reasons are two: first, that the objects grasped by the senses are unstable and constantly changing. This claim rests on the assumption that the possibility of acquiring knowledge depends on grasping unchanging and unchangeable entities (such as the forms). For Plato, the objects apprehended by the senses are like quicksilver; they are impossible to pick up. Hence the need for unalterable entities as the objects of knowledge. But common sense would reject this account. It would hold that we have knowledge that is impeccable about all sorts of things that change: rivers, persons, animals, and seasons. So the backup for this claim is less than compelling. His second reason is that the objects of sense-experience have incompatible properties. A given rock is both heavy and light, and therefore lacks a definable nature. This rationale is also not convincing. Plato does not seem to have understood that such properties, as being light or being heavy, are always relative to a given frame of reference. So to a strong person a given rock is light but to a weak person it is heavy. Once relational properties are introduced, his ground for believing that the senses cannot grasp objects is seen by common sense to be weak.

The case is different with Parmenides: His arguments, though leading to conclusions that common sense would not accept, rest on assumptions that are solid and convincing. His major worries are also about serious problems that even common sense will take seriously: “What is the cosmos really like” or “Is the world made of some fundamental stuff, and if so, what is it?” It is

these questions that eventually lead him to the notions that motion is unreal and that perceived change is an illusion.

Historically, two opposite replies were given to these and related questions, one of them by Parmenides. Both are paradoxical, a word deriving from the Greek that means “contrary to common opinion.” The earlier response, advanced by Heraclitus (540?–475 B.C.), was that the universe is in a constant state of flux so that from moment to moment its ingredients are changing. As he remarks, “You cannot step into the same river twice.” The only thing that does not change is a cosmic balance maintained by the continuous alteration of everything. There is no underlying “stuff” such as water, as Thales believed, that remains invariant through all temporal processes. Though Heraclitus apparently did not draw explicit skeptical implications from this view, some of his followers did. One of them, Cratylus (after whom Plato named a dialogue), held that reality is unknowable. Since it does not stand still long enough to be described, words and their meanings are constantly changing, as is each speaker. Thus human language has no fixed meanings; and accordingly the attainment of accurate information about the world is impossible. Like Heraclitus himself, his epigones held that the universe is ephemeral. For whatever totality exists at any moment, that totality will be substantively different in the moment that follows.

A second, and wholly divergent, point of view was espoused by Parmenides. His theory starts from the assumption that if something, say a leaf, changes, then to speak of it as a “leaf” is to imply that some essential feature remains constant while other features, such as its color and shape, mutate. In a Heraclitean world, a so-called “leaf” would consist of a number of unconnected states that appear successively in one’s visual field. But for Parmenides such a sequence of discrete events is not change. Change mandates, as a matter of logic, cohesion in the changing object; and that requires that something must remain constant. The Parmenidean thesis thus logically entails the existence of some “stuff” that “underlies” the features that change but which is itself immune to change. This “stuff” he calls Being.

Given this intuition about change, Parmenides produced a connected set of arguments, based on pure reason, about the nature of reality: that is, about what he calls “Being.” These arguments show both that what is real has always existed and that it is immobile. The arguments are tied together to support

various inferences about the universe or the totality of Being. Parmenides begins as follows. Suppose one believes that Being must have come from something. If true, that belief would imply that there was a time at which Being did not exist. But then what could it have come from? It could not come from itself, so it must have come from something other than Being. But anything other than Being is Non-Being, and by definition Non-Being does not exist. Non-Being (the Non-Existent) cannot produce anything, since it is nothing. Therefore, Being cannot come into existence at all, and this means that it has always existed.

A related argument proves that Being is a single cohesive stuff. Suppose one assumes that Being is composed of parts. Then either these parts would be real or not real. If they are not real, they do not exist and cannot be part of anything, let alone Being. If they are real, then they are not different from Being. Being is therefore one indissoluble stuff.

By similar reasoning, Parmenides deduced that Being cannot move. His reasoning leads directly to the theses that reality is static and that perceived motion is illusory. Let us follow his thinking. To move to a place means to move to something that either exists or does not exist. But nothing can move to what does not exist, since it is not a place. But then every existing place must be occupied by Being. Therefore it cannot move, and hence it cannot pass away. Accordingly, these arguments, taken conjointly, demonstrate that Being (reality) cannot come into existence or cease to exist, which is equivalent to proving that it is motionless. Logic here conflicts with common sense, which holds that it is obvious that motion exists. For Parmenides common sense is accordingly dispensable. Furthermore, in showing that Being occupies every existing place, Parmenides is identifying Being with the totality of what exists, that is, with the universe. Therefore the arguments also establish that the universe is eternal. The Parmenidean arguments, in effect, distinguish between infinity, regarded as an endless regress, and eternity. They demonstrate that eternity does not depend on any form of causality or temporality. This analysis presupposes as a valid principle of pure reason that from nothing nothing can arise (*ex nihilo nihil fit*). This is a principle that even common sense would find compelling.

### III: THE *EX NIHILLO* PRINCIPLE

Throughout its history, the *ex nihilo* notion has been accepted by nearly all philosophers, with the possible exception of those who are theologians. It is



taken to be a principle which has no conceivable exceptions and accordingly is universally valid.

The situation is different in theology and in contemporary cosmology. These unlikely partners have joined hands against the philosophical community in contending that the principle does not hold with respect to the creation of the universe.

In all the main Western religions, such as Judaism, Christianity, and Islam, the basis for the creation story is found in two places in the Hebrew Bible. The first occurs in *Genesis*, the first of the five books of the *Old Testament* that comprise the *Torah* or *Pentateuch*. Chapters 1–11 deal with primordial history; they begin with the creation of the universe, and then continue with the origin of mankind. Many theologians have referred to the opening sentences of *Genesis*, especially the line that reads “In the beginning God created the heavens and the earth,” in support of the belief that God created the universe from nothing. These verses read as follows in *The Jerusalem Bible* (1966):

In the beginning God created the heavens and the earth. Now the earth was a formless void, there was darkness over the deep, and God’s spirit hovered over the water (Gen. 1:1–2).

The Hebrew words for “formless void,” *tohu* and *bohu*, are sometimes translated as “trackless waste and emptiness.” For some theologians, these terms, like “darkness over the deep” and “water” are negative images that attempt to express the idea of “creation from nothing.”

That the quoted sentences from *Genesis* actually speak about God’s creation of something from nothing has been challenged. But there is another entry in Scripture that is more explicit. It is found in *Second Maccabees*. This document is not one of the twenty-four canonical books of the Hebrew *Tanach* (*Old Testament*) but its inspiration has been recognized by the Roman Catholic Church and is accordingly categorized as “deuterocanonical.” Like *First Maccabees* it treats of the Jewish struggle for religious and political freedom from the Seleucid kings who reigned in the second century B.C. It is generally thought to have been written around 100 B.C. The words in question are:

I implore you, my child, observe heaven and earth, consider all that is in them, and acknowledge that God made them out of what did not exist, and that mankind comes into being in the same way (2 Macc. 7:28).

It will be noted that in speaking of *all* that is in heaven and Earth the author seems to be referring to the totality of what exists, that is, to the entire cosmos; and there is no doubt that he is stating that God made that assemblage out of what did not exist, that is, out of nothing. Like many other religious tenets, the claim is not provable by reason. But having been “revealed” in an authoritative document it is accepted by devotees as true. Almost no major theologians in these religions have challenged the thesis that God created the universe from nothing. It would clearly be impossible in a single chapter to explore the substantial differences that exist in the main monotheistic religions about the mode of creation or the future of the universe, a topic which involves such complex ideas as eschatology, apocalypics, and millenarianism. Instead let us look at what modern cosmology says about the creation story.

#### IV: COSMOLOGY AND THE ORIGIN OF THE UNIVERSE

The narrative based on the Einsteinian theories of relativity and on Hubble’s Constant provides a persuasive scientific account of the early history of the universe that takes us back to the moment when the primeval fireball exploded. But the scientific story stops at that point. With respect to the question, “Where did the original atom come from?” we are offered a different response—one that philosophers will find familiar. The suggestion is made that the question is meaningless since it presupposes that time existed before the big bang. The idea is now advanced by some theorists that time was created with the big bang; hence there was no before.

The cosmologist, Paul Davies, says this explicitly. He writes:

What, then, happened before the big bang? The simple answer is “nothing,” for there was no “before.” If the big bang singularity is accepted as a complete past temporal boundary of all the physical universe, then time itself only came into existence at the big bang. It is meaningless to talk about a “before.” In the same way it is meaningless to ask what caused the big bang, for causality implies time; there were no events that preceded the singularity.<sup>1</sup>

But this statement hardly settles the issue. Clearly something existed before the big bang occurred. According to the tale that modern cosmology tells, that something was a rudimentary entity of incredible density, composed of all the material that comprises the present universe. The original question can then

be rephrased—where did the original atom, that is, all that material come from? Was there a special moment that created such a totality?

To one's surprise, perhaps, a number of scientists provide a positive answer to this last query. I will quote two. Here is what Professor Davies says:

The big bang was the beginning of time. Whether there will be an end of time for the whole universe is still an open question. We can now view the creation as a special case of a naked singularity. Anything can come out of a naked singularity—in the case of the big bang the universe came out. Its creation represents the instantaneous suspension of physical laws, the abrupt flash of lawlessness that allowed something to come out of nothing. It represents a true miracle—transcending physical principles—that could only occur again in the presence of another naked singularity.<sup>2</sup>

When Davies interprets the question as asking what preceded the big bang, he is thinking in temporal language. As early as the thirteenth century, St. Thomas Aquinas realized that “creation out of nothing” did not mean “creation before anything existed” but rather that it meant “not out of something.” As Thomas interpreted the issue, it indicated that God could have created the universe from non-existing materials. Still, for some commentators, it follows that before there was something there was nothing; so the temporal parameters cannot be set aside. To be sure, most Catholic theorists have followed Thomas's reading. Of course, Davies is giving a standard, temporal response to the issue, and this is fairly typical of most scientists. The astronomer, Frank Shu, for example, also thinks in temporal concepts. He speaks of the creation of time contemporaneously with the big bang, and like Davies he avers that the universe could have arisen from literally nothing. Here is how he puts the matter:

Taken together, the discoveries of Hubble and Einstein gave rise to a new world-view. The new cosmology gave empirical validation to the notion of a creation event; it assigned a numerical estimate for when the arrow of time first took flight; and it eventually led to the breathtaking idea that everything in the universe could have arisen from literally nothing.<sup>3</sup>

The idea that something could come from nothing is indeed breathtaking. It is perhaps one of the central marks that distinguishes philosophy from

science and theology. From the time of the Greeks to the present, philosophers (with the exceptions of some theologians, such as Augustine) have agreed that it is impossible that something could come from nothing. The *ex nihilo* principle is perhaps the motivating factor for the many arguments that philosophers have advanced to prove there is a First Cause. The arguments were felt to be necessary since they ruled out as an intelligible possibility that something could come from nothing. Yet as the quotations cited above establish, some modern scientists say the opposite. In this respect, they join forces with the theologians who have expressed just such a view. Does this mean that for these scientists modern cosmology is a form of religion—one that supports the existence of a single God?

Davies confronts the question and provides this answer to it:

There is certainly no incompatibility between these theological ideas and the scientific version, because the singularity, by definition, transcends the laws of nature. It is the one place in the universe where there is room, even for the most hard-nosed materialist, to admit God.<sup>4</sup>

As opposed to theology and cosmology, common sense would find the concept of creation out of nothing incomprehensible. If “nothing” means what it normally means in English and in most natural languages, then it is plain that something cannot arise from nothing. Even on Thomas’s rendering of the principle as “not out of something” the thesis lacks intelligible substance. Common sense would therefore agree with the philosophical tradition. It is an interesting question whether common sense is committed to any sort of creation myth, or to religion in general. It is true that nearly all of the societies about which we have any accurate historical information have had some form of religion. Nonetheless, religions differ enormously. Some invoke a transcendental god (Judaism, Christianity, and Islam) but some think of their god as a human being with an important ethical message to convey. This is true of Buddhism and Confucianism, for example. These latter cases do not violate common sense, and indeed conform to it. Yet, G. E. Moore held that no form of religious worship is part of common sense as he is using the term. In a moment we shall describe his reason for this judgment; but it is worth emphasizing even here that it is part of a general theory about the role of common sense in combating what he labeled as “monstrous” philosophical

conceptions, such as idealism and radical skepticism. Moore is using the term in a way that to some extent is in accord with its everyday use but, driven by philosophical considerations, he gives it a sense that differs from its common employment.

Like all thinkers, Moore was a man of his time, influenced by the prevailing fashions of thought. Early in the twentieth century England was dominated by idealism and various forms of skepticism. Moore reacted negatively to both of these movements. Against the skeptics he insisted that knowledge and certainty were attainable by human beings; and against the idealists, in opposition to their view that everything humans experience is mental, he posed a special version of philosophical realism, according to which space and time are mind-independent and that material (non-mental) objects exist. Common sense was the most important weapon he wielded against these opponents. But, as mentioned earlier, it also exhibits features that markedly depart from these concepts.

During the most productive years of his career, Moore wrote four celebrated papers that attack idealism and skepticism. The first of these, "A Defense of Common Sense," was published in 1925 and deals with both philosophies.<sup>5</sup> The second, "Proof of an External World," appeared in 1939. It confronts idealism and gives a proof that material objects exist. It was one of the most widely discussed papers in twentieth-century philosophy. Wittgenstein, for example, devoted more than half of his final notebook, *On Certainty*, to it. In rapid order it was followed by "Certainty" (1942) and "Four Forms of Scepticism" (1959), both of which argue that knowledge and certitude are not only attainable but are in hand.<sup>6</sup> Because a "Defense of Common Sense" is generally acknowledged to be Moore's finest essay, it will probably be helpful to many readers to summarize its contents. I will then turn to a detailed analysis of its opening and longest segment in which Moore articulates his special conception of common sense and its role in refuting outlandish philosophical theories.

"A Defense of Common Sense" is divided into five parts. In part I, Moore's targets, as mentioned, are skepticism and idealism. With respect to the former, he contends that he and many other human beings know various propositions to be true with certainty. Moore produces a host of such propositions, and describes them as "obvious truisms." His point is that with the exception of infants, and some mentally incapacitated adults, every human being knows with

certainly that such propositions are true. Since radical skepticism claims that nobody knows any proposition to be true, let alone to be certain, Moore concludes that skepticism can be rejected without detailed argumentation. He makes this claim on the ground that any doctrine that runs contrary to what is obvious is wildly misguided.

Part II is brief but it contains a sharp dissent from idealism. Moore holds that there is no good reason to suppose that every physical fact is either causally or logically dependent on some mental fact. He gives various definitions of “physical,” “mental,” “fact,” “logically dependent,” and “causally dependent.” For the idealist all objects, entities, and events are mind-dependent. Moore objects to this claim and via this chain of definitions produces some counter-examples. Part II thus extends the argument in part I.

In part III, Moore speaks about religion. He asserts that there is no good reason to suppose that all material things have been created by God or that we shall continue to exist and be conscious after the death of our bodies. Moore’s main point here is not to question the truth or even the meaningfulness of religious maxims, but simply to argue that no religious proposition is part of the common sense view of the world. This follows from the joint theses that the propositions of common sense are obvious truisms, and the propositions of religion are not.

In part IV, Moore draws a distinction between propositions he knows to be true with certainty (as in part I) and what he calls their “correct analysis.” He does not explain what he means by “analysis.” He does say that how they are to be analyzed depends on how propositions of a simpler sort are to be analyzed. He states that “material objects exist” depends on the analysis of a proposition such as “I see a hand,” and this in turn on a simpler proposition, “This is a hand,” and the latter on “I am perceiving this.” The analysis of these simpler propositions is, he avers, very difficult, but two things are certain: (i) the proposition is always about a sense-datum, and (ii) what is known or judged to be true is that the sense-datum itself is not a hand or any sort of physical object, such as a dog or the Sun. His ground for this assertion is that in perception we never see the whole of an *opaque* object directly; that is, we do not see its obverse and reverse sides at the same time from a given perspectival standpoint; and hence we do not see a whole hand directly. Thus when we say we see a hand an inference is involved. But in seeing anything opaque there is something in one’s visual field that one does see directly and

this is what Moore means by a sense-datum. He gives an elaborate explanation of how to identify a sense-datum when one looks at one's hand. Given this account, he states that it is certain that one does not directly perceive one's (whole) hand, but does perceive something (a sense-datum) that is somehow related to it. He claims that no philosopher has given a correct account of the relationship between the directly perceived sense-datum and the corresponding opaque object. Such an account would be an analysis of the proposition, "This is a hand."

Moore concludes this part by stating that there are only three possible options concerning this relationship. These are direct realism (the doctrine that the sense-datum is identical with the facing part of the surface of the opaque object); representative realism (the thesis that the sense-datum is different from any part of the perceived surface but is somehow reflective or representative of it); and phenomenalism (that a physical object is simply a heap of actual and possible sense-data, a view that comes very close to a form of Idealism). He finds all three options to be defective and ends this section indecisively.

Part V is brief. Moore states that he is in no doubt about the truth of such propositions as "This is a hand" and "This is a table," but has "the gravest doubt" about their correct analysis. He adds that many philosophers have assumed that there is little or no doubt about the correct analysis of such propositions and some have held that the propositions are not true. These positions are exactly the reverse of his.

#### **V: "A DEFENSE OF COMMON SENSE," PART I**

Because the opening section of "A Defense of Common Sense" is generally considered to be its most important part, and also because it describes Moore's conception of common sense, I shall focus on it in what follows. But before doing so, it may be helpful to provide a brief description of the sorts of Idealism that were endemic in Moore's time.

Two forms of the doctrine were prevalent: subjective and absolute idealism. The former derived from the eighteenth century Irish philosopher, Bishop Berkeley, who held that to be is to be perceived; whereas absolute idealism had its sources in nineteenth century German (especially Hegelian) philosophy. Both had in common the thesis that reality is wholly mental. Subjective idealism mainly impacted those who were interested in the relationship between

perception and knowledge. It was felt by these thinkers that much of what we know about the world derives from the senses. The argument advanced in support of this position was emphasized by the empiricists, Locke and Hume. In England, by the first half of the twentieth century, their forms of empiricism had been considerably compromised. But their mentalistic outlook, with its stress on ideas and impressions, still persisted, though with major changes in terminology. Moore belonged to this coterie, as did C. D. Broad, F. H. Bradley, J. M. McTaggart, A. J. Ayer, and Russell among others. The main terms they used for what Hume called “ideas” and “impressions,” were “sensa” and “sense-data.” It was held to be indisputable that each of us has a different awareness of sense-data, *generally* conceived of as mental entities, from the objects presumably belonging to an external (i.e., non-mental) reality. A distinction was thus drawn between such phenomena as headaches, itches, and pains, on the one hand, and tomatoes, chairs, and rocks, on the other. The former were directly accessible to or knowable *only* by their proprietors. This idea led to a puzzle about how knowledge of the so-called “external world” is possible, since each of us is *directly* aware only of his or her own subjective sensations, and at best is indirectly aware of (or inferentially aware of) putative external phenomena. The important conclusion drawn from this picture of the mind is that such internal phenomena, including the felt sensations that arise from touch, smell, hearing, and taste, were the only evidential bases one had for what the extra-mental world was like, so that it was theoretically possible that belief in an external, non-mental reality was chimerical. Ayer named this problem, *The Egocentric Predicament*.

Absolute idealism is a form of monism that contends that reality constitutes a totality whose parts are internally and necessarily related to one another and therefore cannot be separated without distortion. The position was defended by a number of arguments; here is a familiar one: Suppose a person is looking at a blue pen. To describe it as blue is to imply that it is not yellow, not red, not orange, and so forth. Hence, the proposition “This pen is blue” is only partially true. Because it entails an infinite number of other propositions it is not the whole truth. Moore resisted the idealistic inference that no single statement is either wholly true or wholly false; he also rejected the claim that insofar as the notions of truth or falsity can be ascribed to individual pronouncements they are at most partially true or partially false. Instead he argued that the world consists of discrete facts which in turn are composed of



particular objects. An example of such a fact would be: *This is a hand* (said by Moore while pointing to one of his hands). For Moore, it is described completely by the statement, “This is a hand.” As Moore states: The cosmos is largely composed of physical (mind-independent) objects, the human hand being an example of such an object. Objects are the constituents of facts. Accordingly, if one states “This is a hand” and if it is a hand, the statement is not just partially true but wholly true. Moore’s views are thus in accord with a kind of reflective common sense that would agree that one is able to isolate certain facts and certain objects from a holistic background, and that the statements describing such facts are either true or false without qualification. When Moore speaks about mind-independent objects he is referring to both forms of idealism and denying that the cosmos is wholly mental. Insofar as common sense has any theory or view about external reality—a matter that is dubious—Moore’s position is compatible with it. Let us now examine part I in detail.

Moore’s “Defense of Common Sense” exploded on the philosophical scene like a bombshell, most of its shocking power coming from part I. The essay starts out innocuously enough. Moore says that “in what follows, I have merely tried to state, one by one, some of the most important points in which my philosophical position differs from positions which have been taken up by *some* other philosophers.”

This modest opening is followed by two points. In stating the first, under the heading (1), he says he will enunciate a long list of propositions each of which *he knows, with certainty, to be true*. He adds that under the heading (2), he then will assert a single proposition which he also knows, with certainty, to be true. All the propositions in (1) and the single proposition (2) he characterizes as “obvious truisms.”

Moore divides the large list of propositions in (1) into two categories. Let us call them A and B respectively. The difference between the two groups is that the majority of propositions in A are about “his body,” whereas most of those in B are about “his mind” (“the self”). Here are specimens of the propositions in A:

There exists at present a living human body, which is *my* body. This body was born at a certain time in the past, and has existed continuously ever since, though not without undergoing changes; it was, for instance, much smaller

when it was born, and for some time afterwards, than it is now. Ever since it was born, it has been either in contact with or not far from the surface of the earth . . . (and) there have, at every moment since its birth, been large numbers of other living human beings. . . . But the earth had existed also for many years before my body was born; and for many of these years also, large numbers of human bodies had, at every moment, been alive upon it; and many of these bodies had died and ceased to exist before it was born.<sup>7</sup>

Here are some examples of the propositions in B:

I am a human being, and I have, at different times since my body was born, had many different experiences, of each of many different kinds, e.g., I have often perceived both my own body and other things which formed part of its environment, including other human bodies. . . . I have had expectations with regard to the future, and many beliefs of other kinds, both true and false; I have thought of imaginary things and persons and incidents, in the reality of which I did not believe; I have had dreams; and I have had feelings of many different kinds.<sup>8</sup>

In contrast to the long list of assertions in (1), (2) consists of a single proposition. Moore's statement of this contains 176 words. I will simplify it. In essence, (2) is the proposition that "each of us" has frequently known with respect to himself or herself propositions about his or her own body and self that correspond to each of those in (1) that Moore claims to know about himself. That is, (2) states that each of us knows that he or she has a body, that his or her body was at one time smaller than it is now, that each of us has had many experiences, such as dreams, and so forth. Moore says of (2) that it is an obvious truism, and he also states that he, Moore, knows (2) to be true with certainty. He is thus saying that he knows with certainty that others have known with certainty propositions about themselves analogous to those in (1). Proposition (2) is key to the argument against idealism and skepticism that follows in part I. It expresses what Moore means by *The Common Sense View of the World*. His contention is that there is a *common* store of knowledge that many, probably most, human beings possess. Virtually everyone knows that the Earth exists, that it is very old, that other persons have lived and died during the period in which each of us has lived, and that each of us has had various kinds of psychological experiences which resemble those which others have had. The arguments against idealism and skept-

ticism consist in the implications Moore draws from the fact that there is such a common sense view. It is the boldness and power of these conclusions that shook the philosophical world.

We can divide his arguments into those refuting idealism and those refuting skepticism. Broadly speaking, he will claim that idealism is false but not self-contradictory, and that skepticism is self-contradictory. Before producing the arguments Moore describes two features of the common sense view. First, he says that all of the propositions in (1) and the single proposition (2) are *wholly* true. He is here contravening absolute idealism, the view that there can only be one proposition that is wholly true and that applies only to the Absolute, the totality of what exists. For idealists, any individual proposition, for example, that this pen is green, is only partially true because it is logically tied to a host of other propositions, such as the pen is not white, and the pen is not yellow, and so forth. The total set of properties that define the pen is thus inexhaustible and accordingly any single assertion about it cannot be wholly true. Moore admits that a given statement can be partially true, but he asserts that each of the propositions he has enunciated is wholly true. The notion that there are complete truths about particular facts is one that he held for many years. Accordingly, he will be using the phrase “true” in such a way that if a statement is only partially true it is not “true” in his sense. This will be an important thesis because he contends that the common sense view of the world is true, and accordingly that any proposition inconsistent with it, even if partially true, is therefore not true.

Second, he asserts that in the propositions in (1) and in (2) itself he is using words with their ordinary meanings. This is one of the places where Moore’s approach earned him the sobriquet of “ordinary language philosopher.” Then comes a shocker, the first of many. One of the most disconcerting things ordinary folk discover in talking to a philosopher is to hear that individual say, “It all depends on what you mean.” So if the ordinary person asks a simple question, for example, “Do you still live in California?” a philosopher’s response is likely to be: “Well it all depends on what you mean by ‘still,’ or by ‘live,’ or by ‘in.’” This kind of fancy dancing infuriated Moore. In one of the most devastatingly critical passages of philosophical practice, he blistered:

In what I have just said, I have assumed that there is some meaning which is *the* ordinary or popular meaning of such expressions as “The earth has existed for

many years past.” And this, I am afraid, is an assumption which some philosophers are capable of disputing. They seem to think that the question “Do you believe that the earth has existed for many years past?” is not a plain question, such as should be met either by a plain “Yes” or “No,” or by a plain “I can’t make up my mind,” but is the sort of question which can properly be met by: “It all depends on what you mean by ‘the earth’ and ‘exists’ and ‘years’: if you mean so and so, and so and so, and so and so, then I do; but if you mean so and so, and so and so, and so and so, or so and so, and so and so, and so and so, or so and so, and so and so, and so and so, then I don’t, or at least I think it is extremely doubtful.” It seems to me that such a view is as profoundly mistaken as any view can be. Such an expression as “The earth has existed for many years past,” is the very type of unambiguous expression, the meaning of which we all understand.<sup>9</sup>

One can appreciate why “A Defense of Common Sense” created such a furor.

Moore followed this denunciation by distinguishing the question whether we understand the meaning of a proposition like “The earth has existed for many years past,” which he says we all do, with the different question—What is its correct analysis? The latter he says is “a profoundly difficult question, and one to which, as I shall presently urge, no one knows the answer.” But giving an analysis, he points out, is an entirely different thing from whether we understand an expression. He indicates that we cannot even raise the question of how the proposition is to be analyzed unless we do understand it. He adds, “So soon, therefore, as we know that a person who uses such an expression is using it in its ordinary sense, we understand his meaning.” We shall hear more from him about this later.

The argument against idealism draws specific inferences from the truth of (2). This proposition, it will be recalled, states that many other persons have known propositions analogous to those that in (1) Moore states he knows. Since the idealist denies that any single proposition can be (wholly) true, it follows from that view, according to Moore, that (2) is not true. But (2) speaks about “us.” Therefore, if (2) is not true, then “us” has no application, which means that no persons now exist or have ever existed. If that is so, then no philosopher has ever existed, and accordingly, none could have held that no proposition belonging to the common sense view is true. Moore says he is more certain that some philosophers have existed than he is about the truth of that theory. In effect, he is asking the reader to consider which option is the

more likely: that other persons, including philosophers, have existed or that idealism is true. Moore concludes by saying that since idealism contradicts the common sense view that time and space are real, and that external objects and human selves exist, it can be dismissed without examining its specific arguments in detail.

To appreciate the force of Moore's style I will briefly quote part of the preceding argument. He writes:

For when I speak of "philosophers" I mean, of course (as we all do), exclusively philosophers who have been human beings, with human bodies that have lived upon the earth, and who have at different times had many different experiences. If, therefore, there have been any philosophers, there have been human beings of this class; and if there have been human beings of this class, all the rest of what is asserted in (1) is certainly true too. Any view, therefore, incompatible with the proposition that many propositions corresponding to each of the propositions in (1) are true, can only be true, on the hypothesis that no philosopher has ever held such a view. It follows, therefore, that, in considering whether this proposition is true, I cannot consistently regard the fact that many philosophers, whom I respect, have, to the best of my belief, held views incompatible with it, as having any weight at all against it.<sup>10</sup>

Idealism is given a different status from skepticism. Idealism is simply false. Moore says there is nothing logically inconsistent about holding that time and space are not real, or that there are no other selves besides one's own. It might have been the case that space is not real or that time is not real. But in fact they are, so that idealism is mistaken. But the skeptic's problems are more profound. Moore's view is that it is self-contradictory and can be discarded on that ground.

Skepticism, Moore reminds us, holds that none of us knows for certain any propositions that assert the existence of material things, or the existence of selves, other than myself, or that such selves have also had experiences similar to mine. Moore holds that the skeptic is speaking not only about himself but about other human beings as well when he says "No human being has ever known of the existence of other human beings." But in making this assertion the skeptic is implying that he knows (and knows with certainty) that many other human beings have existed and that none of them has ever known anything with certainty. But this statement is self-contradictory. As Moore says,

such a philosopher is asserting that he knows with certainty the very thing—that others exist—which he is declaring that no human being has ever known with certainty. Here is how Moore describes the skeptic:

If he says: “These beliefs are beliefs of Common Sense, but they are not matters of *knowledge*,” he is saying: “There have been many other human beings beside myself, who have shared these beliefs, but neither I nor any of the rest has ever known them to be true.” In other words, he asserts with confidence that these beliefs *are* beliefs of Common Sense, and seems often to fail to notice that, *if* they are, they must be true since the proposition that they are beliefs of Common Sense is one which logically entails . . . the proposition that many human beings, besides the philosopher himself, have had human bodies, which lived upon the earth, and have had various experiences, including beliefs of this kind. This is why this position . . . seems to me to be self-contradictory. It . . . is making a proposition about *human knowledge* in general, and therefore is actually asserting the existence of many human beings . . . they regard the proposition that those beliefs are beliefs of Common Sense, or the proposition that they themselves are not the only members of the human race, as not merely true, but *certainly* true; and *certainly* true it cannot be, unless one member, at least of the human race, namely themselves, has *known* the very things which that member is declaring that no human being has ever known.<sup>11</sup>

Moore is thus claiming that it is self-contradictory to maintain that *we* know such beliefs to be features in the common sense view, and yet are not certainly true; since to say that *we know this* presupposes that they are certainly true. Accordingly, skepticism is hoisted upon its own petard. Moore concludes Part I by saying:

And there are, of course, enormous numbers of other features in “the Common Sense view of the world” which, if these are true, are quite certainly true too: e.g., that there have lived upon the surface of the earth not only human beings, but also many different species of plants and animals, etc., etc.<sup>12</sup>

Moore’s bold defense of common sense, his proof of an external world, and his commitment to sense-data theory have been widely criticized. I shall restrict my discussion to three criticisms.

## VI: THREE CRITICISMS

1. It has been held that “The Defense of Common Sense” begs the question against skepticism. The criticism claims that Moore simply assumes that the common sense view is true, but never justifies this claim. He never explains how he knows such propositions as “The earth has existed for many years past.” He indicates that he obviously does not know this proposition directly, but only on the basis of other things which were evidence for it. He says that this seems to him to be no good reason for doubting that he does know it. He states: “We are all, I think, in this strange position that we do *know* many things . . . and yet we do not know *how* we know them, i.e., we do not know what the evidence was.”

Two objections arise given these remarks. Both skeptics and dogmatists agree that to affirm that A knows that p logically implies that p is true, that A cannot be mistaken about p, and that A has “good” grounds for his belief in p. Their disagreement is not over the meaning of “know” but over whether there are any cases satisfying the definition. Let us designate “The earth has existed for many years past” as the proposition p. Since Moore’s presumed knowledge of p is admittedly inferential and not direct, then there is a gap between the evidence and p. But if so, a mistake is always possible in concluding that p is true, and if that is so, then given the definition of “know” Moore cannot know p with certainty.

Furthermore, if one does not even know what the evidence is, then the assertion that one knows p has no evidential support whatsoever. It is just a dogmatic affirmation and cannot establish that one really knows that p is true. There are many cases where persons make dogmatic assertions, for example, that the world will come to an end on such and such a date, or that the speaker is God. Yet dogmatic assertion does not entail truth. Wittgenstein puts this point precisely when he states in *On Certainty* (entry 521): “Moore’s mistake lies in this—countering the assertion that one cannot know that, by saying ‘I do know it.’” Wittgenstein’s point is that Moore’s inability to answer the skeptical question: “How do you know?” without adducing supporting grounds is not a legitimate move in the ordinary process of human communication. Moore’s procedure is thus question begging. It asserts as obvious exactly that which requires justification. He *claims* to know, but claiming is not the same thing as knowing. One must be able to explain *how* one knows; and if

one cannot do so, then the claim cannot be accepted as a genuine case of knowledge. His refutation of skepticism is thus abortive.

2. A second criticism comes from the Idealist camp. As I mentioned, in “Proof of an External World,” Moore claims he can prove there are external objects. He does so by holding up his hands and saying: “Here is one hand, and here is another. Therefore, there are two material objects.” Everyone, including the idealist, agrees that if there are any material objects then there are external objects, since material objects are prototypes of the kinds of things that would be mind-independent. But the idealist denies that there are any such things. He holds that what Moore is calling “a hand” is not a material object at all, but simply a collection of actual and possible sensations; and since all sensations are “ideas,” and since all ideas are mental entities, hands are not mind-independent. Accordingly, to show that two hands exists does not show that the external world exists. The criticism is to the effect that once again Moore has begged the question. He has assumed that hands are external objects, but whether they are is just the point at issue. Though he rejects idealism (but for different reasons) Wittgenstein agrees with the idealist that Moore’s proof will not do. Moore, from a Wittgensteinian perspective, does not understand that the issue between him and the idealist is not an empirical issue, namely whether there are really two hands in front of him, and whether he is really holding them up, but a deeper, philosophical issue, about the basic constituents of the world: whether those constituents, including hands, are really mental or not. And that is not an issue that can be decided simply by holding up one’s hands. It requires a different kind of approach to show how and why the idealist is wrong. This is a view I share.

3. A third criticism of Moore’s whole approach to philosophy was mounted by Wittgenstein in *On Certainty*, and as the previous remarks about Moore’s not understanding the nature of idealism suggest, it is a profound one. The criticism can be encapsulated by a comment Wittgenstein makes in that work:

Instead of “I know . . .,” couldn’t Moore have said: “It stands fast for me that . . .”? And further: “It stands fast for me and many others.”<sup>13</sup>

Wittgenstein thinks that Moore’s defense of the common sense view is important and that there is something right about it. But he also thinks that there is something wrong—and fundamentally wrong—about it. What is right is



that there are such things as knowledge and certainty and Moore is to be commended for defending that point of view. But what is wrong about it is that it conflates knowing and certitude. Moore thinks that the examples he gives of the common sense view—that the earth is very old, that there are other human beings, that he (Moore) is a human being—are the sorts of things that can be said to be *known*. But this is a serious misdescription of how the concepts of knowledge and certainty apply in ordinary life. Where knowledge claims are appropriately advanced then justification is necessary. But the examples he gives do not need justification. They are certain and no mistake about them is possible. As Wittgenstein pointedly remarks to Malcolm:

Certain propositions belong to my “frame of reference.” If I had to give *them* up, I shouldn’t be able to judge *anything*. Take the example of the earth’s having existed many years before I was born. What evidence against it could there be? A document?<sup>14</sup>

Hence, certitude has a completely different status. That which is certain (that which “stands fast for me and for many others”) is beyond justification, truth, the adducing of evidence, or knowledge. *On Certainty* is Wittgenstein’s last book and it attempts to show where Moore goes wrong and what the correct account of the difference between knowledge and certainty is. It salutes Moore as a great explorer and yet admonishes him for finding the wrong continent.

## VII: SCIENCE AND SKEPTICISM

Despite the evidence that biology and physics have supplied to support the view that there is a real world “out there,” some thinkers of a skeptical persuasion have challenged this assertion. Curiously enough, in mounting this challenge, they find science itself to be a form of skepticism. Historically, skepticism comes in two versions, both of which rest on an assumption that science itself accepts, namely that most of the information we supposedly have about an external reality rests on sense-experience. The first version is the more radical; it states that the only *direct* information we have consists of subjective sensations, what W. H. Thorpe calls “experiencing,” and that it is conceivable that nothing outside of these sensations exists. It is thus possible that we are deluded into thinking that there is an external reality. The second, more

moderate version, states that the senses are notoriously unreliable, so that we can never be sure that any account about external reality, even a scientific one, is accurate.

Let us examine these two forms of skepticism, beginning with the contention that most of our knowledge of external reality comes from seeing, hearing, smelling, and so forth things. I know there is a rosebush in my front yard because I see it there. I know that cars exist because I can hear them going by, and if I glance out the window, I can see them. It is the visual and auditory senses that provide us with information about these things. The ordinary person and the scientist tend to trust the senses, and to assume that the information they generate is reliable. But the skeptic finds such acceptance too facile. Consider some simple counter-cases.

We use mirrors for all sorts of purposes: to shave, to examine one's skin, and to observe the positions of cars behind us. When one shaves, for example, one assumes that the image of one's face that appears in the mirror is accurate, and therefore that the process of shaving will be successful. Yet, if one thinks about mirrors a little more carefully, one realizes that every mirror image distorts one's perception of the world's features. If one holds up an English language book to a mirror, one cannot read it, because the print runs backward. Yet the print on the book does not. One looking in a mirror never sees one's own face directly, that is, in the way other persons do. What one sees is reversed and subtly altered. We can shave because we adjust our habits to this situation, but it is a mistake to think that one is seeing one's own face as others do.

There are many ordinary, daily-life situations like this. A straight stick put in water looks bent; yet we do not believe it has become bent just because it was immersed in water, which is an easily penetrable liquid. Railroad tracks seem to converge in the distance, and yet when we walk to the spot where they apparently merged we find them to be parallel. The wheels of automobiles seen on television seem to be going backward when the automobile is seen to be moving forward. Yet this is impossible. Such examples of distorted perception could be multiplied endlessly. Each of these sense phenomena is thus misleading in some way. If human beings were to accept the world as being exactly how it looks they would be deceived as to how things really are. They would think the stick in water really to be bent, the writing on pages really to be reversed, and the wheels really to be going backward.

These are visual anomalies, and they represent the sorts of ordinary occurrences that provide ammunition for the skeptic. Starting from these cases, the skeptic can show that, when scrutinized, our common sense beliefs become increasingly vulnerable to doubt.

Consider the case of the stick that looks bent when immersed in water. How can one be sure that it does not become bent when put in water? How can one be sure that it is straight when it is out of the water? Of course it looks straight, but it also looks bent. What justifies giving priority to some sense impressions over others?

A person of common sense might respond by saying that seeing is not a sufficient condition for knowledge. One needs to correct vision by some of the other senses. Thus one might claim that the stick in water is not really bent because one can feel it with his hands to be straight when it is in the water. Thus, one corrects aberrant visual sensations by tactile impressions. But the skeptic can easily meet this move. What, he might say, justifies accepting one mode of perception as more accurate than another? After all, there are common occurrences that cast doubt upon the reliability of touch. Suppose one were to cool one hand and warm the other, and then insert both into a bucket of water having a uniform thermometric reading. The water will feel warm to the cold hand, and cold to the warm hand. But by stipulation, the water has the same uniform temperature, and therefore cannot be both hot and cold at the same time. Does this imply that one is not sensing the water at all? It is an interesting possibility and some skeptics have argued that such an inference is correct. But whether it is or not, the experiment surely suggests that the tactile sense cannot be fully trusted either, and that in particular, there is no justification for giving it priority over vision.

These remarks merely scratch the surface. In his famous Dream Hypothesis, Rene Descartes (1596–1650) propounded an even deeper skeptical objection to the common sense reliance on the senses and especially on vision. He pointed out that the visual sensations we experience when asleep are intrinsically indistinguishable from those we experience when awake, and accordingly it is not possible by means of the senses to know *at any given moment* whether we are awake or asleep. But if this is so, we can *never* be sure on the basis of sense-experience that we are apprehending the real world. This is radical skepticism in a full-blown form. It supports the first

form of skepticism, that we could have a panoply of sense information to which nothing external corresponds.

Suppose in the light of such difficulties, it is proposed that no mode of sense perception is sufficient to guarantee that one has knowledge, and hence that one needs to correct the senses by some other mode of awareness, say by reason. Reason tells us that, despite appearances, it is illogical to believe that parallel steel tracks, without any apparent reason, suddenly converge or that water bends rigid objects like sticks. So independently of what our senses say, we can count on reason as a corrective that will give us an accurate picture of the world's features.

Yet reason has its own difficulties. It suffers from various liabilities: forgetting, jumping to unwarranted conclusions, miscalculations, misunderstandings, and misinterpretations. Almost everybody has forgotten or misremembered something important. One remembers having met a friend at the airport in Rome; yet that person has never been in Rome. One has added a column of figures incorrectly, getting the wrong sum. So why should one trust reason if its conclusions sometimes run counter to sense perception?

As these various examples show, the skeptical attitude cannot merely be dismissed. If it is ultimately mistaken, one will have to show why. That will require serious thinking in order to arrive at a clear and defensible explanation of the apparently simple claim that the stick is really straight. In effect, a person who attempts to meet this challenge will need to develop a compelling theory that justifies the common sense and the scientific beliefs that our senses are reliable. It would be viciously circular to appeal to science to decide this question since science assumes the reliability of sense-experience, and that is just the point at issue. But that science does depend on data acquired through the senses is beyond question. And it is this fact that is the basis for the surprising claim made by some philosophers that science is a form of skepticism—moderate skepticism, to be sure, but skepticism nonetheless.

The conclusion to be drawn from these instances (and one could add an extensive list of others) is that we have good reasons for believing that everyday observation misrepresents the nature of reality. In undermining common sense, in favor of a highly complex, very counterintuitive picture of an under-

lying reality, science supports skeptical doubts about the apparent knowledge the senses give us. It demonstrates that they do not provide an accurate account of how things are. But if science itself relies on observation, then are we justified in thinking its picture of the world is any more accurate than the ordinary man's? And if there is doubt about this, then are we justified in thinking that science can solve all problems?

Despite the seeming strength of the preceding skeptical arguments, they can be neutralized in various ways. If such counter-arguments are cogent—and the present writer thinks they are—one can support the scientific presupposition that there is an external world, and the concomitant belief that science can eventually come to discover what it is like and how it operates. Here are two arguments in support of science:

First, it is true that most, though not all, scientific knowledge of an external reality is based on observation. In the case of human beings it is the brain that processes such information. But observations depend for their existence on entities, such as the body and some of its organs, that are mind-independent. A noted biologist and dualist, W. H. Thorpe, agrees with this point. As he writes:

There is no doubt that in the higher animals and in human beings, the brain is the main organ of correlation of the information flow received from all the various sense organs which are transmitting “news” about the external world—including, of course, news from the body itself and from the sense organs which tell us about tensions in the muscles and the positions of the limbs and joints.<sup>15</sup>

In this citation, Thorpe is stressing that the human body, including its muscles, limbs, and joints, is part of the external world and is not a mental entity. The essential point he is making is that subjective mental experience depends on bodily features and that these themselves are mind-independent. So here we have an argument that sentience depends for its existence on that which is non-sentient. Accordingly, science is justified in rejecting the skeptical contention that because mental experience is private we have no reason to believe in an external material reality.

There is a second source of support for science's view of reality that is strictly biological and is derived from the theory of evolution. It begins by contrasting unaided human vision with the extensions that scientific instruments

provide. The distinguished American biologist, S. J. Singer, has explained this point as follows:

The second pedestal on which modern science stands is the tremendous extension of the range of human perception that has been generated in the recent past. Prior to modern science, all of our information about the world was derived through our unaided senses, especially through visual perception. . . .

These limits on our perception are examples of the functional economy of evolution. Natural selection is parsimonious. It selects only for qualities that are important for survival. Our ancestors did not need to recognize objects at very long distances in order to capture prey or to avoid predators, and in view of the curvature of the Earth's surface, our ability to perceive long distances horizontally was in any event proscribed. In a similar vein, we did not need to, and therefore did not see objects that are less than about 0.1 mm in size. The entire world of microorganisms was therefore invisible to us and remained unknown until microscopes were invented.<sup>16</sup>

But what might be called the “middle sized furniture” of the world can be apprehended by the visual systems of most animals. Evolutionary theory does more than take it for granted that there is a real world. It explains why there *must* be such a world given the millions of years that so many species have persevered. The existence of an external world is thus *proved* not by *observation* as the skeptical challenge assumes, but by the persistence of uncountable species of living beings.

Let us return to Moore for a moment. Although the objections to his view are substantive, I feel that independent of his mode of expressing it, Moore's basic point is that skepticism and idealism are not taken seriously by ordinary persons. They do not *in general* mistrust their eyes, ears, and taste buds. In consequence, they do not suppose that they are encapsulated in a realm of subjective sensations, or that things do not move or change. It is not that they believe the contrary; the issue never arises for them. Most human behavior is habitual, such as waking up in the morning after a night's sleep. One doesn't worry about whether one is awake or not; one just goes about one's business. The fact is that in ordinary life there is little reflection about the things that bother philosophers; and this shows that most everyday activities don't require much reflection. The philosophical theory that we can't tell at any given moment whether we are asleep or not, if expressed in the presence of non-

philosophers, would be regarded as absurd. Moore has attempted to capture this dismissive attitude by speaking in propositional language, and that is an error, as Wittgenstein and others have pointed out. Like many philosophers, he has overintellectualized ordinary life. What Moore has not seen—and here Wittgenstein has the deeper insight—is that the assertion of propositions requires proof and justification, but that the practices and attitudes of ordinary life do not. Nevertheless, Moore, in his own way, is attempting to bring philosophers around to seeing things in the ways that ordinary persons do. His mode of articulating this thought is undoubtedly subject to criticism; but, when interpreted at a deeper level, I submit that it is essentially correct. One can thus admit the merit of the preceding criticisms without disparaging Moore's basic insight.

In effect, what Moore is saying is that with respect to such “monstrous” theories as radical skepticism and idealism, common sense rules the roost. It has a kind of authority against such flights of fancy. Moore restricted his account of the dominance of common sense to these particular cases. It was left to Wittgenstein and some of his followers to claim that *all* philosophical theories are paradoxical. Using Moore's defense of common sense as a fulcrum they generalized to all cases of philosophical theorizing. Whether this extension is correct is a matter of debate. But even if they are wrong, Moore's own defense engenders a puzzle.

### VIII: DOES COMMON SENSE ALWAYS GIVE WAY TO SCIENCE?

Why is it that common sense which has such governance in philosophy gives way to scientific theorizing? In that domain, it no longer commands the power it has in philosophy. Why the difference? It is a serious question, well worth exploring. Let us begin with three simple examples in which science dominates common sense. Note that in each of these the common sense outlook is based on information provided by the senses.

1. Our daily experience is of a *macroscopic* world, whose components we can see, touch, hear, smell, and feel. That world is composed of inanimate objects, like rocks and mountains, and of animate entities like insects, primates, and human beings. We can all see the Sun, the moon, and feel ourselves standing on solid ground. Information based on observation makes it plain that the Earth does not move and that the Sun revolves around it from east to west. Since time immemorial this has been the accepted picture of the cosmos. Yet

astronomy tells us that it is entirely wrong. The Earth is in fact rotating and moving through space, and the Sun does not circle our planet. Common sense gives way in this case to the authority of science.

2. The ordinary person tends to think of water as a liquid that is useful for various purposes: for drinking, washing, and mixing with other substances. It is the observable properties of water that the ordinary person is aware of. But science argues that water should not be identified with such observable properties, but with groups of entities—molecules and atoms—that are of microscopic or submicroscopic size. In liquidity and transparency, we see the manifestations of these invisible ingredients but their common essential nature is hidden from everyday perception. It is clear that the senses have misled us.

3. Common sense believes that many objects are perfectly solid. The table I am writing on is a case in point. It holds up my computer and my books. But according to scientific theory, the table is mostly empty space and is not really solid. Its perceptible solidity is thus misleading as to its real nature. The truth of the matter is that the table is a cluster of invisible electrical particles occupying mostly empty space.

The conclusion to be drawn from these instances (and one could add an extensive list of others) is that we have good reasons for believing that common sense, based on everyday observation, misrepresents the nature of reality. In undermining common sense, in favor of a complex, counterintuitive picture of an underlying reality, science rejects the apparent knowledge the senses give us. It demonstrates that they do not provide an accurate account of how things are.

This puzzle leads to another. Science is a complicated activity that involves reflection, theorizing, and experiment. But it is also based on observation which in turn depends on the five senses and especially on vision. Astronomers cannot perform experiments on distant celestial objects, such as galaxies and black holes; but they do theorize about them, using telescopic and other evidence. All their data are functions of sense-experience. But if in these cases science depends on the information provided by the senses why does it have a preferential status with respect to common sense? What justifies the rejection of common sense by science when both rely on the same sources for information?



To these puzzles I have a pair of responses. With respect to the first, that is, why common sense gives way to science, the full answer involves a brief history of scientific research. However, there is an even shorter response that goes to the heart of the matter. It is that common sense has remained without much change over eons of time but that science is in a state of constant revision. It adjusts to new evidence and corrects earlier mistakes. The result is progress. Ordinary persons are impressed by these advances, which they see in every field of science, but especially in medicine where the changes are revolutionary. The historical analysis which supports this reply runs as follows:

Unlike technology, its frequent companion, science is a form of curiosity, tempered by the requirement that its investigative activities lead to an accurate picture of things. This aim distinguishes it from many other disciplines, such as pure mathematics. A mathematician may construct a conceptual scheme of great elegance that has no application to reality. Yet that it doesn't may not affect its mathematical significance. But science is different. If a scientific idea doesn't fit the facts it will eventually be discarded despite its ingenuity. A famous case of this sort is the theory advanced by Claudius Ptolemaeus (fl. 127–145 A.D.) to the effect that the Earth is the center of the universe and does not move. Ptolemy argued that since all bodies fall toward the center of the universe, the Earth must be stationed at its center, otherwise falling objects would not be seen to drop toward the center of the Earth. Furthermore, if the Earth rotated every twenty-four hours, a body thrown vertically upward should not fall back to the same place, as it was seen to do. Ptolemy also pointed out that no countervailing data had ever been observed. His theories were based on common sense and everyday observation. As a result of his arguments, the geocentric system became the accepted truth in Western Christendom until it was superseded in the sixteenth century by the heliocentric system of Copernicus. The Copernican view that the planets have circular orbits was in turn replaced by Kepler's discovery that the orbits are elliptical. A new explanation of why bodies fall to the ground was given still later by Newton's theory of universal gravitation. Yet as elegant and powerful as it is, the Newtonian system is now known to be a special case of a more general form of astrophysics that was developed by Einstein at the beginning of the last century, and it is this outlook, supplemented by quantum theory, that is currently accepted by most scientists.

There are many such corrections in the history of science. The replacement of phlogiston theory by Lavoisier's discovery that oxygen is the causal factor in combustion is another example of scientific advance. Despite some misfires, science has a notable record for correcting its errors. Most intelligent persons are impressed by this record, and it is widely believed today that science will continue to make steady progress toward a true view of things. Its capacity for revision and its evident progress toward a better comprehension of the natural world contrasts sharply with the static nature of common sense. Philosophical theories also tend to be fixed; and that is why common sense can be an antidote to them. But it is the plastic nature of science that makes it immune to common sense. It is assumed by most ordinary people that science provides the best explanation of the world's main features. This reaction is wholly justifiable in the light of the historical evidence.

The second problem that presupposes that both common sense and science rely on the same evidential base, namely sense-experience, has a somewhat more complicated answer. But put simply, it is that the use of instruments and machines in almost every branch of science means that the naked eye is supplemented by devices that go well beyond anything that common sense uses in its assessment of the world. Prior to the development of such mechanical aids as high-energy accelerators or the electron microscope, most of the information about the world that human beings acquired was by means of a visual system that includes the eye, rods, cones, the retina, the optic nerve, and the brain. This system arose from and was refined by evolutionary development and natural selection. If one asks: "What is the purpose or point of this system?" the answer, given by Darwin, is that it makes survival possible. It enables humans to see and find sources of food and shelter, avoid predators and other hostile forces, and to select mates for propagating the species. What animals perceive of the world is limited by the range of their visual capacities. Accordingly, there are aspects of the real world that cannot be seen by the unaided animal eye, no matter how keen. It is true, of course, that human observers using unassisted vision eventually record the measurements provided by these instruments and machines. But the data obtained through them are different from anything common sense can acquire. The contention that both common sense and science use the same observational data is thus mistaken. The biologist, S. J. Singer, has emphasized the difference.

Things are seen with the unaided eye only if they emit or reflect radiation within a very narrow range of the electromagnetic spectrum (which we call light) and only if they are suitably contrasted with their background. . . . Humans do not see X-rays, ultraviolet or infrared radiation, microwaves or radio frequencies (that is, well over 99 percent of the electromagnetic spectrum) and were therefore entirely unaware of the existence of such phenomena as recently as 150 years ago. Likewise, our perception of distance is limited by the stereoscopic analysis provided by our two eyes and brain so that, for example, we cannot discriminate astral distances; to us, all the visible stars appear to be located on a single canopy in the night sky, much as we see them projected on the roof of a planetarium. We cannot distinguish with the unaided eye between a distant galaxy containing billions of stars and a nearby single star in our own galaxy, since both appear to us as single points of light.<sup>17</sup>

Ordinary persons and scientists alike assume that in general such sophisticated devices as microscopes and telescopes can be trusted; and the fact that this is so explains why, in circumstances where science and common sense impinge on one another, common sense usually gives way. The use of machines is an essential ingredient in modern science, and the data they produce outweigh the resources of common sense. It is thus little wonder that where the two come into conflict it is science that generally prevails.

A question still remains. Is it *always* the case that science will win out against common sense? The answer depends to a great extent on the circumstances in which they conflict. As we have noted, when common sense leaves its traditional role of offering sensible advice and makes statements about matters of fact, for example, that the Earth is not moving through space and that the Sun revolves around the Earth, it is seen to be fallible. But can one generalize from these particular cases to all instances of scientific theorizing? I submit that one cannot and that there may be examples of scientific speculation in which common sense at least has some grip and may even prevail. The following scenario may be a case of that sort.

Microseconds after the big bang occurred a cloud of superheated gas, thought to be produced by a process called “inflation,” congealed into our present cosmos. The evidence for inflation is based on discoveries made in 1965 of radio waves, called “microwaves,” that are conjectured to be background remnants of the original explosion. Measurements have shown that

these emanate from all parts of extragalactic space, rather than from any specific locus, such as the Milky Way, and that they have an energy spectrum just a few degrees above absolute zero ( $-270^\circ$ ). Some astronomers believe that inflation may have produced a mega-universe which settled in clumps, each of which is an independent cosmos. The number of such universes is a matter of speculation, but according to these theorists it may be unlimited.

Some proponents of the parallel-universe theory have suggested that it is theoretically possible to develop vehicles that will pass through a black hole in our present universe and enter without destruction into a neighboring universe. A passenger in such a vehicle may be transported without harm through a black hole and into a parallel universe. In that case, it is argued, it may be possible for a given person to meet his or her parents before he or she is born. The evidence for this possibility is admitted to be tenuous and consists of an extension of present cosmological theory beyond that which many scientists regard as solid. Nonetheless the speculation is not without some evidential basis and is taken seriously by at least some scientists. What would common sense make of such an outré scenario? Would it have anything relevant to say about the matter?

I think that common sense would initially refrain from any judgment about the merit of such speculation. But on further reflection, it might well separate the question of whether space travel through a black hole is possible, regarding it as a technical matter about which it has no expertise, from the question whether one could meet one's parents before one is born. The latter it would regard as a story that lacks sense. Who would do the meeting and what would that "entity" look like? It would thus have resumed its traditional role of providing good judgment on the ground that it is unintelligible to speak about meeting one's parents before one is born. Here the advice would be: speak intelligibly or remain silent. It would thus echo Wittgenstein's final comment in the *Tractatus*: "Concerning that which cannot be said one must remain silent."

## NOTES

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# The Appeal to Ordinary Language<sup>1</sup>

## I: WHAT IS ORDINARY LANGUAGE?

There is no doubt that for their various special purposes many authors—linguists, sociologists, psychologists, and philosophers among them—have described or appealed to what they call “ordinary language.” The most common idea is that ordinary language is to be distinguished from technical language, and examples are given to support this notion. A distinction is thus drawn between a word like “proton” and a word like “table.” The former is said to be a technical term and the latter to belong to ordinary language. The philosopher, Gilbert Ryle, is typical of such writers. In an essay entitled “Ordinary Language,” he says:

When people speak of the use of ordinary language, the word “ordinary” is in implicit or explicit contrast with “out of the way,” “esoteric,” “technical,” “poetical,” “notational,” or sometimes “archaic.” “Ordinary” means “common,” “current,” “colloquial,” “vernacular,” “natural,” “prosaic,” “non-notational,” “on the tongue of Everyman,” and is usually in contrast with dictions which only a few people know how to use, such as the technical terms or artificial symbolism of lawyers, theologians, economists, philosophers, cartographers, mathematicians, symbolic logicians and players of Royal Tennis. There is no sharp boundary between “common” and “uncommon,” “technical” and “untechnical” or “old-fashioned” and “current.”

Like most theorists, Ryle's focus is not on the two words "ordinary language" but on the word "ordinary." He thus *assumes* that there is such a thing as ordinary language and that it is the term "ordinary" that carries most of the intellectual baggage in such a combination. I agree with both suggestions. It will be noted that he offers a basketful of contrasts and assimilations, although his main focus seems to be on the distinction between ordinary and technical language, which he describes as consisting of "dictions which only a few people know how to use."

Let us look more closely at "technical" which is one of the central expressions that Ryle takes to contrast with "ordinary." Webster's *Third New International Dictionary* and *The American College Dictionary* exhibit considerable overlap in the definitions of this term. The latter provides seven definitions: (i) "belonging to or pertaining to an art or arts: *technical skill*"; (ii) "peculiar to or characteristic of a particular art, science, profession, trade, etc.: *technical details*"; (iii) "using technical terms, or treating a subject technically, as a writer or a book"; (iv) "skilled in, or familiar in a practical way with, a particular art, trade, etc., as a person"; (v) "pertaining to or connected with the mechanical or industrial arts and the applied sciences: *a technical school*"; (vi) "so considered from a technical point of view: *a military engagement ending in a technical defeat*"; and (vii) "*Exchanges*: (of market prices), *temporarily distorted by unusual buying or selling.*"

According to these sources, the main contrast between "technical" and "non-technical" seems to be "unskilled." In this connection one should note that many related words, such as "technique" and "technology" refer to this contrast. A technician is one skilled in the performance of an art or in solving mechanical problems. A piano player, for example, is said to have great technique or to be a fine technician.

It will be noted that Ryle's discussion focuses on individual words which are either contrasted with or likened to "ordinary." One might think, intuitively, that ordinary language would consist of the most frequently used words, either written or spoken in that particular language. But this idea would be mistaken. Individual words do not constitute a language. Language is more than a collection of words; it also comprises complex structures that embed words in such things as phrases and various types of sentences, and it is these structures that are mostly used in speaking and in writing. The concentration on word frequency is thus likely to give a mis-



leading picture of usage. However, if one wishes to go that route, it is interesting, as an experiment, to investigate such frequencies. The most commonly used word in spoken English, for example, is “I” followed in order by “you,” “the,” and “a.” The most commonly used word in *written* English is “the,” which appears twice as often as the next most common word which is “of.” I am appending several lists of the most commonly used words in written English. Table 2.1 (p.40) lists the most commonly used words in written English by a number of different sources.

My inference based on these statistical materials is that it is wrong to try to define ordinary language by focusing on the most frequently used words in a particular language. We obviously need a different criterion.

## II: A SOMEWHAT DIFFERENT CHARACTERIZATION

One key to a slightly different characterization of ordinary speech lies in a remark that Charles Caton makes in discussing ordinary language. Caton says that when physicists or carpenters talk to their wives they are using ordinary language.<sup>2</sup> He realizes, of course, that there may be special situations, for example, where a male and female physicist are married to one another. In such a case, some of their verbal exchanges may well involve the technical uses of certain expressions. I draw a specific moral from this example. Where a male physicist and his equally competent wife converse, what counts as a professional exchange would probably be unintelligible to an outsider, say a philosopher like me. Thus, when philosophers talk about the deduction theorem and its implications, that specimen of discourse can be understood by those trained in logic, whether male or female. But such talk would be incomprehensible to one lacking such proficiency. Here is a passage from a radiologist’s report about a possible case of osteoporosis. Most physicians would have no trouble grasping its meaning.

Bone mineral density in the lumbar spine (L1–L4) consistent with osteopenia. Note that the bone mineral density and T score at the L1 vertebral level are consistent with osteoporosis which increases the risk of fracture. Degenerative scoliosis and osteophyte at L3 and L4 may falsely elevate the normal bone density.

Let’s agree that a lawyer or philosopher might not understand this report. But they might wish to express their perplexity in a medium they both comprehend.

**Table 2.1.**

| <i>Frequency Analysis of English Vocabulary and Grammar</i> |   |  |           |  |                     |
|---|---|--|-----------|--|---------------------|
| <i>Guinness Book of World Records</i>                       | <i>Based on the LOB Corpus by Stig Johansson and Knut Hofland</i> | <i>American Heritage Word Frequency Book by John Carroll</i> |           | <i>Words in the Works of Shakespeare</i> |                     |
| 1. the  | 1. the  | 1. the   | 36. we    | 71. no                                   | 1. the              |
| 2. of   | 2. of   | 2. of  | 37. there | 72. make                                 | 2. and              |
| 3. and  | 3. and  | 3. and   | 38. can   | 73. than                                 | 3. I                |
| 4. to   | 4. to   | 4. a   | 39. an    | 74. first                                | 4. to               |
| 5. a  | 5. a  | 5. to  | 40. your  | 75. been                                 | 5. of               |
| 6. in   | 6. in   | 6. in  | 41. which | 76. its                                  | 6. a                |
| 7. that   | 7. that   | 7. is  | 42. their | 77. who                                  | 7. you              |
| 8. is   | 8. is   | 8. you   | 43. said  | 78. now                                  | 8. my               |
| 9. I  | 9. was  | 9. that  | 44. if    | 79. people                               | 9. that             |
| 10. it  | 10. it  | 10. it   | 45. do    | 80. my                                   | 10. in              |
| 11. for   | 11. for   | 11. he   | 46. will  | 81. made                                 | 11. is              |
| 12. as  | 12. he  | 12. for  | 47. each  | 82. over                                 | 12. not             |
|   | 13. as  | 13. was  | 48. about | 83. did                                  | 13. with            |
|   | 14. with  | 14. on   | 49. how   | 84. down                                 | 14. as              |
|   | 15. be  | 15. are  | 50. up    | 85. only                                 | 15. for             |
|   | 16. on  | 16. as   | 51. out   | 86. way                                  | 16. it              |
|   | 17. I   | 17. with   | 52. them  | 87. find                                 | 17. me              |
|   | 18. his   | 18. his  | 53. then  | 88. use                                  | 18. his             |
|   |   | 19. they   | 54. she   | 89. may                                  | 19. be              |
|   |   | 20. at   | 55. many  | 90. water                                | 20. he <sup>2</sup> |
|   |   | 21. be   | 56. some  | 91. long                                 |                     |
|   |   | 22. this   | 57. so    | 92. little                               |                     |
|   |   | 23. from   | 58. these | 93. very                                 |                     |
|   |   | 24. I  | 59. would | 94. after                                |                     |
|   |   | 25. have   | 60. other | 95. word                                 |                     |
|   |   | 26. or   | 61. into  | 96. called                               |                     |
|   |   | 27. by   | 62. has   | 97. just                                 |                     |
|   |   | 28. one  | 63. more  | 98. where                                |                     |
|   |   | 29. had  | 64. her   | 99. most                                 |                     |
|   |   | 30. not  | 65. two   | 100. know <sup>1</sup>                   |                     |
|   |   | 31. not  | 66. like  |  |                     |
|   |   | 32. what   | 67. him   |  |                     |
|   |   | 33. all  | 68. see   |  |                     |
|   |   | 34. were   | 69. time  |  |                     |
|   |   | 35. when   | 70. could |  |                     |

<sup>1</sup>The next hundred are: get, through, back, much, before, go, good, new, write, our, used, me, man, too, any, day, same, right, look, think, also, around, another, came, come, work, three, word, must, because, does, part, even, place, well, such, here, take, why, things, help, put, years, different, away, again, off, went, old, number, great, tell, men, say, small, every, found, still, between, name, should, Mr., home, big, give, air, line, set, own, under, read, last, never, us, left, end, along, while, might, next, sound, below, saw, something, thought, both, few, those, always.

<sup>2</sup>8598 words are used only once.

Suppose the lawyer says: “I don’t understand what this means.” And let us suppose the philosopher responds by saying: “I don’t either.” What they don’t understand is what a radiologist or almost any doctor would understand. It is clear that they don’t understand some specimen of language that belongs to a specific profession—in this case, to radiology or medicine. But although both of them in their professional capacities use language that a radiologist or a primary care physician would generally not understand, in this particular case the bewilderment they both express is in a mutually acceptable parlance that allows them to communicate. This for me is a case of ordinary language. The idea I have is thus pretty close to what Ryle means by “non-technical” but it nonetheless differs. My emphasis is upon the *uninitiated*, those whose understanding and speech differ from any body of discourse spoken by and only understood by persons belonging to particular professions. It is, of course, difficult to specify what counts as a profession. But we can offer examples. The language spoken by logicians at a convention dedicated to logic would thus differ in content from the interchanges between radiologists in discussing a particular case with their colleagues. But in the event that lawyers or radiologists happened to stumble into a conference on logic they could express their lack of comprehension in a language that doesn’t belong to any profession, including logic. I call this ordinary language.

Good dictionaries support the idea that ordinary language is non-professional. *Webster’s New Third International* gives a number of definitions of “profession,” one of which is particularly relevant to our discussion. It states: “A calling requiring specialized knowledge and often long and intensive preparation including instruction in skills and methods as well as in the scientific, historical, or scholarly principles underlying such skills and methods.” Some of the instructions any such calling gives are linguistic. These allow members of a particular profession to communicate with one another. They may include segments of ordinary language, of course, but the point is that some of the verbal interchanges can be understood only by members of that particular grouping. The contrast is between those initiated in a special linguistic capacity and those who are not. What the latter speak to each other is what I am calling ordinary language.

I wish to add still another condition to my characterization of ordinary language—a condition that is difficult to describe concisely. In general, it will override the criterion mentioned above. Hence, for something to be

ordinary it must in all cases satisfy this requirement. Perhaps the simplest description of this condition is that ordinary language must obey the laws of logic as those are construed in a broad sense of the term. It is the construal of such laws in “a broad sense of the term” that creates the difficulty. The laws of logic, even in a narrow sense, apply to ordinary language. They exclude certain combinations of concepts (or words), such as formal contradictions. If one asserts both  $p$  and not  $p$ , one has said nothing. Contradictions are thus a special form of nonsense. But senselessness may take many forms in linguistic contexts. This is especially true in philosophy, where there is a tendency to introduce and use terms that play no significant role in any type of discourse. These are usually not contradictions in a formal sense. But, in a broad sense of “logic,” they can be shown to be devoid of cognitive content and it is this sort of “senseless” that ordinary language does and should avoid. The above description is probably too vague to be of much assistance in delineating what I mean by ordinary language. But the exposition of a problem that follows will help the reader understand what I am trying to depict. So let us turn now to that problem to see how the appeal to ordinary language can help with its resolution. It will be noted that in this particular instance philosophers are using or have used what seems to them to be ordinary language; yet I will show that the condition, requiring that ordinary language be sensible, has been violated. My point is that certain key concepts, especially the terms “direct” and “indirect” and their adverbial forms, that philosophers use in contexts where they purportedly play an essential role result in a special kind of *unsinnigkeit*. These philosophers thus think they are employing ordinary discourse but they are not.

### III: THE PROBLEM OF OUR KNOWLEDGE OF THE EXTERNAL WORLD

This is a philosophical conundrum we shall explore in some depth in the next chapter. But even a brief account of it is needed here to demonstrate that it turns on misuses of the notions of “direct” and “indirect” or some of their adverbial forms. Since its introduction by Descartes in the seventeenth century it has bedeviled philosophy until today. Some writers have described it as the “central problem” of the theory of knowledge. It is the Cartesian model of the human mind that generates the perplexity. The Cartesian conception turns critically on an inner-outer distinction, involving a two-substance theory of reality. Mind and matter are two substances. Mind is an immaterial substance,

lacking extension, mass, and locus. Matter is just the opposite: All pieces of matter have extension (length), bulk, and a specific location. According to Descartes, the distinction is both exhaustive and exclusive. In saying this, he meant that everything that exists is either matter or mind, and that nothing is both. They are thus completely distinct substances. As with all two substance models, the Cartesian vision generates a problem about how the two substances can interact if they are so different. In this respect it is similar to Plato's quandary about how particulars can participate in the forms, since the former are in space and time and the latter are not. The Cartesian model raises a host of similar difficulties, for example, how mental substance which is immaterial can interact with physical substance that has mass and weight. How can something immaterial (mind) affect or cause something material (like an arm) to move when one decides to pick up a book. The model gives rise to two of the most forbidding puzzles in the philosophical lexicon: the External World and Other Minds problems. They are direct consequences of the model because the model identifies the mental with what is inner, the inner with what is private (with what is directly accessible to one only, that is, to the proprietor of a particular mind), and the private with that which is hidden from others. The model thus suggests that each human being is encapsulated within the circle of his or her own ideas.

The difficulty is then how to emerge from this "egocentric predicament." According to the model, one has *direct* access to his or her own ideas, feelings and sensations, but no direct access to anything external, that is, to the material world or to the minds of others. Such access, if possible at all, is at best *indirect* and at most probable. In one's own case certainty about one's ideas and feelings is possible because no inference is required. The relationship is direct. But this is a very restricted kind of certainty. It is limited to one's own sensations. So two difficulties immediately arise. If the only evidence one has for anything are one's own subjective ideas, feelings, and sensations, what reason does anyone have to suppose that there is a reality external to those ideas and sensations? And even if there is such a reality, what reason does one have for supposing that one has accurate information (knowledge) about it? The threat of skepticism is immediately entailed by this conception.

It would surprise any person of common sense to be told that we are only aware of our own sensations. Common sense takes it as an unreflective given that there are objects, things, events, processes, phenomena, and so forth,

whose existence does not depend upon the existence (or state) of any particular mind or set of minds. It thus takes it as obvious that—to speak now in professional, philosophical terms—such objects, processes, phenomena are *mind-independent*. The moon at which I am now staring is a good example of common sense's unreflective stance. From that perspective, the moon does not depend for its existence upon the existence of my mind, nor of any state of my mind, nor upon the existence or state of any other mind, collection of minds, nor upon their past, present, or future states. Even if all minds were to be obliterated, the moon would continue to exist, assuming, of course, that no non-mental process had also obliterated it. By "states of mind," I mean to include one's thoughts, guesses, intentions, beliefs, and desires. One's thought that some objects can exist unperceived is a mental state, as I am using the term. The basic philosophical difficulty, surprising to persons of common sense, can be explained as follows. If O is a human observer and EW is the world existing independently of that observer, then there are compelling reasons for believing that there are intermediaries that intervene between O and EW and thus prevent O from apprehending the world directly. Depending on the historical period, these representatives or intermediaries have been given various names: "ideas," "sensations," "impressions," "sensa," "sense-data," "mediators," and in the present century, "images," "transducers," "mental representations," and "brain states." Once images or representations are admitted, the problem of our knowledge of EW becomes difficult for any form of common sense.

My analysis of the situation concentrates on the concepts of *direct* and *indirect* and of their adverbial forms, "directly" and "indirectly." I shall be arguing that in the tradition of direct and representative realism these notions have been misapplied. But of course both notions are intimately tied to that of being an *intermediary*, so I shall in fact begin with an examination of that concept. I shall show that the use of this notion in both the past and current literature has been at least unclear and often crucially misguided; and if so, it will give us grounds for thinking that the uses of "direct" and "indirect" (and their adverbial forms) have suffered from similar liabilities. In the long history of our subject there has been some sort of progress. This often consists in recognizing the mistakes of our predecessors. The advance may well consist in simply redescribing in a less paradoxical or confusing or contradictory way the same set of facts. If I can do this it will help show that common sense is

correct in its unreflective stance that most of the time human beings see “external objects” without intermediation.

#### IV: INTERMEDIARIES

The philosophical tradition tends to think of intermediaries as functioning in two-party cases, rather than as standing between several parties or groups of parties. The parties are, of course, an observer (O) and the external world (EW). On this two-party interpretation, the tradition regards an intermediary as having two functions: it stands between the parties, and it separates or keeps them apart. There is no doubt that intermediaries do sometimes serve both functions. But they work in other ways, too. To take the two functions as exemplary can be misleading in at least two ways. It can suggest that some X is functioning as an intermediary when it is not; and it can suggest that the function of an intermediary is always to separate things or keep them apart when in fact intermediaries may function in different or even in exactly opposite ways. Let us consider three cases in terms of which we can test the applicability of the philosophical model. These will have nothing to do with vision. But in the light of the last one especially, we can perhaps cast a little light on vision.

1. A and B are a boxer and a referee, respectively, and the former has just been warned for a low blow by the latter. A championship is at stake and A explodes at the decision, rushing toward B. A and B engage in a heated argument over the warning. C is A's manager. He quickly leaves his stool and interposes himself between A and B. He doesn't want A disqualified; so he pushes him away and persuades him to withdraw to his corner. He has acted as an intermediary. He has placed himself between A and B and he has kept them apart. The manager has served as an intermediary exactly in the way that philosophers tend to think of perceptions or other sorts of representations. The manager has kept A and B apart by standing between them. Sense-data or representations keep O and EW apart by standing between them; that is why, according to the tradition, O cannot get at EW directly.

The example is instructive. Reflecting on it, we can see that something cannot be an intermediary merely by standing between two things. Standing between two things may be a necessary, but it is not a sufficient condition for intermediation. We are at a cocktail party and I notice a young woman standing between two male friends of mine. I ask my companion: “Who is the

woman standing between Jones and Smith?” It would be senseless to ask: “Who is the intermediary standing between Jones and Smith?” Are Jones and Smith arguing, and is she trying to intercede? No. The three of them are just standing there talking calmly. The fact that she stands between them does not mean that she is an intermediary. The fact that Los Angeles stands between San Francisco and San Diego does not mean that it is an intermediary between those cities. Intermediaries have to do more than stand between A and B; they have to serve some other function or functions as well. The philosophical tradition interprets their function to be that of separating A and B. We can ask two questions: “Is it a necessary condition of X’s being an intermediary that in a two-party situation X stand between the parties?” “Is it X’s function to keep the parties apart?” The case of the manager would suggest that the answer to both questions is “yes.” But let’s look at other cases before deciding that this answer is right.

2. A wishes to buy a house from B. But A and B cannot agree on a price for the property. Realizing that they cannot agree, they hire a lawyer to work out a settlement and they stipulate in advance to accept his or her decision. Is the lawyer an intermediary? The tradition would say so. Its proponents would say so because they would realize that the parties cannot continue to negotiate directly; their attempts to reach a settlement have failed. They need a third party—an intermediary. Of course the lawyer doesn’t have to stand between them literally—the whole negotiation could be pursued over the phone. But he or she stands between them as a neutral party, and the contending parties represent their particular case to this third party. But is it the lawyer’s function to keep them apart? Here it is not clear what we would say. Certainly the attorney is not doing what the manager did in the previous scenario—pushing the parties apart as if they were somehow clawing at one another. The idea of keeping them apart does not seem applicable in this case. If anything, we might say that if the attorney is an intermediary at all, his or her function in this particular situation is to bring the parties together—to help them arrive at a consensus about the property. In sum, then, the tradition would probably say that the lawyer was an intermediary. The lawyer eventually brought the parties together and reached an agreement; but the tradition would also admonish that the parties did not negotiate directly, so in that sense the intermediary kept them apart. But we would add to this that the function of the



intermediary in this case was certainly different from that in the managerial case just described.

3. Our last case is the most important. M is a legal secretary. She has just returned from her office after a long day and now decides to eat. She sets the table in the usual way, with a wine glass, placemat, napkin, knife, spoon, and fork. She is eating steak. She cuts the meat with the knife and lifts it into her mouth with the fork. Let us now consider the fork. Is it an intermediary? One might say so and argue as follows. M does not grasp the meat with her hands and put it into her mouth. She is a product of civilization and thus uses the fork instead of her hands or, more accurately, her fingers to pick up the meat that she wishes to eat. So clearly the fork is an intermediary between her fingers and the meat. It stands between her fingers and the meat. So runs the line of reasoning. But is the fork an intermediary? We saw in our first case that an intermediary stood between two parties and kept them apart. In this case, if the fork were an intermediary it would have facilitated, not interfered with, her access to the steak. In our first case, we were able to identify the parties that were kept apart. One was a boxer, the other a referee, and the intermediary was the manager. In our second scenario, we again had no trouble identifying the two parties and the intermediary—buyer, seller, lawyer. We could say in that scenario that the lawyer stood between the buyer and the seller, though his function of course was not to keep them apart but to work out a financial settlement that they would agree to. But in the case of M, what are the two parties? How do we identify them?

M's purpose was to have dinner, which entailed eating some steak. She could have picked up the meat and put it in her mouth using her fingers. Would her fingers have then been an intermediary? An intermediary between what and what? Between the meat and her mouth? But her intention was not merely to put the meat in her mouth but to eat it. Was her mouth then an intermediary between the meat and what? Between her chewing the meat, or swallowing it, or having it lodge in her stomach? How do we decide what the parties are in this scenario? Let us reverse the scenario. If her mouth is not one of the parties, and her fingers are not one of the parties, why should the fork be regarded as an intermediary? What this scenario raises is the fundamental issue of how we identify the parties in a two-party scenario, and in turn, how we identify a supposed intermediary between the two parties.

However one responds to such queries, it is clear that the scenario's characters are less clearly defined than they were in our first two scenarios.

What have these sketches taught us? I submit at least the following:

Before we can say that X is an intermediary between A and B, we have to identify A and B as independent parties. This I contend is what we cannot do in the last case. Before we can say that X is an intermediary, we need a more careful characterization of what it is to be an intermediary. Is it really a necessary condition of being an intermediary that something stand between A and B. Clearly the fork that M held did not stand between her and the meat, no more than her fingers stood between her and the meat. In characterizing what she does in using the fork, it is a mistake to speak of it as standing between her fingers and the meat, and thus of being an intermediary in this situation.

Even where X is an intermediary, X does not necessarily keep A and B apart. We have seen that the lawyer is an intermediary. But he is also a mediator; he brings his clients together, trying to achieve an accord. If something is an intermediary between O and EW, it does not follow that it will prevent O from having access to EW; it may facilitate such access. In using her fork, has M picked up the meat indirectly? If her fingers are intermediaries between the food and her mouth and she picks up the meat with her fingers, has she picked up the meat indirectly? If she leans over and picks up the meat with her mouth, has she picked it up directly? Directly as opposed to what? To using her fork? Certainly not; that is not a case of picking up the meat indirectly. She is neither picking up the meat directly nor picking it up indirectly by using her fork. And if she used her fingers instead of a fork, as A did, she would not be picking up the meat directly. Nor would she be picking it up indirectly.

C, A's manager, was an intermediary. He interposed himself between A and B. Did he separate them directly? Directly as opposed to what? Suppose C had called to A from his stool to desist and A had done so. Would we say that the manager had separated A and B indirectly? Would that remark be understood by anyone? Suppose he sent a trainer out, and it was the trainer who interposed himself between A and B. Did the manager separate them in that case? Did he do so indirectly? Did the manager separate them indirectly because he used the trainer as an intermediary? Persons of common sense would say that it was the trainer who separated A and B and not the manager. It would surely be incomprehensible to such speakers if one insisted that it was the manager who separated them but did so indirectly.

In philosophy, “directly” is sometimes taken to mean “immediately” and “indirectly” is taken to mean “mediately.” In our first scenario we can say that the manager separated A and B immediately. He rushed off his seat and immediately interposed himself between them. He did not hang around waiting to see what would happen. Suppose he had waited and then interposed himself? Should we say that he interposed himself mediately? To use language in this way is more than an awkward way of expressing what one means; it is an incomprehensible way of explaining that the manager hesitated before acting. In our third scenario, M picked up the meat with a fork instead of her fingers. Can we say that she picked up the meat mediately? Well, then, shall we insist she picked it up immediately—she did not hang around for a while, staring at it, and then picked it up. This sort of description hardly fits what M was doing. In what sorts of circumstances would “immediately” play a role? And what would its denial be in those circumstances? We might describe what a fox was doing if it cautiously approached some meat, sniffed at it for a while, circled it, and then finally began to eat it. In such a case we could say that the fox did not pick up the meat immediately. But if not, did it pick up the meat mediately? Surely we mean not “mediately” but “after a while.” With respect to M, though, what shall we say? She did nothing out of the ordinary. She set the table as planned and in a perfectly regular way sat down and had her meal. She did not circle the table warily, poking at the meat, and then finally eating it. It would thus be odd to say that she ate the meat immediately—as if the situation had some important, hidden contrast. Suppose, however, she was in a hurry, kept looking at her watch, had an appointment at 8:00 p.m., and so on. In that scenario we can sensibly say she ate immediately—that is, right after setting the table. We might wish to add: “so that she could keep her appointment.” But even in that scenario we would have to add some qualifications to clarify what we meant by saying that she ate the *meat* immediately. Did she postpone eating the vegetables until later, and if so why? We would have to expand the scenario for the point of the contrast to emerge clearly.

These last two examples teach us at least three things:

1. Even where two terms may seem to be opposites, such as “directly” and “indirectly,” it does not follow that they are exhaustive of all options, that is, that for any situation one describes, it follows that they can sensibly be applied in that situation. It would seem true to aver that if M did not eat her meat directly, surely she must have eaten it indirectly. But not so—better to say that

the terms do not apply in this context. We should keep this point in mind when we come to discuss seeing.

2. We should be careful in deciding what counts as a synonym or antonym of a given term. It may be that in some contexts, we can replace “directly” by “immediately,” but that in others we cannot. But even if in some contexts such a substitution is possible, it may be that we cannot replace “indirectly” by “mediately.” I shall expatiate upon the importance of this point in due course.

3. There may be contexts in which the term “X” has a term “Y” which is used in opposition to “X.” There may also be situations in which “X” can be used but not “Y,” and conversely. “Directly” and “indirectly” may be used as polar terms in some contexts, but not in all. Consider the terms “true” and “false” by way of illustration. We can speak of a statement as true or of a statement as false. We can speak of true vocal chords and of false vocal chords. “True” in these uses has “false” as its polar term, and both “true” and “false” can be applied to such things as statements and vocal chords. But then we discover a range of cases in which we begin to hesitate. Can we say of A both that he is a true penny, and a false penny? If one can say a story rings true, does it make sense to say that it rings false? Can we say that something is a true dollar bill or a false dollar bill? As we move away from the cases in which the contrast is completely in order, such as those of statements and vocal chords, through a range of increasingly dubious cases, we eventually come to some cases in which it is patent that the contrasting terms cannot both be applied. There are true corgis but not false corgis. What is the contrast in such a case? A true corgi is a corgi that has been specially bred; it satisfies certain criteria laid down at Crofts. If something is not a true corgi, it is not a false corgi. What is it then? Well, it is just a corgi. So “true corgi” contrasts with “corgi” but not with “false corgi.” An ordinary corgi is not a false corgi. Likewise, there is false sandalwood, but not true sandalwood, and so forth. Clearly similar remarks apply to such key words as “directly” and “indirectly,” and words that in some situations can be used as synonyms of these. The moral we should derive from the preceding discussion is that we can easily misrepresent a situation if we do not observe certain precautions in the language we use for describing it. It would be a misdescription to say of the original scenario, that described what M did, that she ate the meat either directly or indirectly. It would have been a serious mistake to think that the contrast one might wish to draw by saying that she ate the meat with her fork instead of her fingers could just as sensibly

be described by saying that she ate the meat indirectly or directly. This should teach us some important lessons with respect to the theory of vision.

In summary, let us say the following: We have learned from these scenarios that even when X is an intermediary between A and B, it may not be true to say that X's interposition was either direct or indirect. More than that, we have learned that what counts as an intermediary in a given situation is often not easy to characterize; and of course it may be quite misleading to force a characterization that suggests that there is an intermediary present in a given situation. We have also learned that what counts as a party, in a two-party situation, is also difficult to assess. There are clear cases, less clear cases, and some in which we should wish to deny that there are parties. We have also discovered that the concept of standing between A and B is subject to similar liabilities and cautions in its use; and of course we have seen some difficulties in the application of the notions of "direct" and "indirect" and of their adverbial forms. Before applying these lessons to both versions of realism, I should now like to add a few more words about "directly" and "indirectly."

#### V. "DIRECTLY" AND "INDIRECTLY"

First, a linguistic point. Let us return to our first scenario. How shall we describe what the manager did? In particular, where in the descriptive sentence should the word "directly" be inserted? Did he interpose himself directly between A and B, or did he interpose himself between A and B directly? The questions may mean different things, depending on where "directly" occurs. To say that the manager interposed himself directly between A and B may mean that he put himself right between the contending parties. "Directly," as so used, carries spatial overtones; it helps us understand where the manager was located. If he was off to one side, one wouldn't say he had interposed himself between A and B. Think of a referee who separates two boxers by standing directly between them. We wouldn't say that a referee who stood to the side, trying from that position to separate the pugilists, was directly between them.

In contrast, to say that the manager intervened directly could mean that he interposed himself without delay, without hesitation—that is, right away. We find this use in a sentence like: "When I called, he came over directly." In this use, "directly" does not bear a spatial but rather a temporal connotation. In this use it means something like "immediately." I do not wish here to digress

into a discussion of the logic of words that are often taken by the tradition to be synonyms of “directly” but rather to concentrate upon that expression itself. Still, it is clear that “immediately” in general carries temporal rather than spatial resonances. Somehow, through a complicated historical process, this term has been given a spatial connotation in the theory of perception. The move to such a spatial sense may well be one of the factors giving rise to profound difficulties, even confusions, in the theory of vision.

But if we do think of “directly” as carrying a spatial sense, and if we presumably see sense-data or images directly, and objects belonging to the external world indirectly, then “indirectly” will also carry a spatial sense—provided that “indirectly” can be used as a polar term at all. But then what could it mean to say that we see such external objects indirectly? By analogy with the case of the manager, does it mean that the intermediary is at the center of our visual field—we see it directly—and that insofar as we see objects indirectly, we are seeing them, as it were, overlapping the image we see directly? It would be a little like a boxer trying to see around the referee; he might not be seeing the face of his opponent but maybe only arms and gloves. Is the tradition correct—could it be correct—in suggesting that in “normal cases of perception” we are, as it were, peering around images to see the external world? Certainly that is not what any author, either in the tradition of representative realism or of direct realism, would have meant. When Moore argues that we directly see an elliptical X in our visual field, he does not mean that it partly covers the circular surface of a coin, so that by peering intently we can somehow see its edges around the elliptical sense-datum. The oddity that he has diagnosed instead is that the elliptical X one sees directly appears to be exactly where the surface of the coin is—there is nothing sticking out behind it. It is as if X fit perfectly: indeed, that is what raises the issue whether X is or is not identical with the surface of the coin. Therefore, insofar as “directly” carries such spatial resonances, it is hard to see how it can be maintained that we always see sense-data directly and external objects indirectly. No theory of vision is acceptable that has the consequence that we seem always to be peering around things to see external objects. We know that we don’t always peer when we see, and if the theory carries this implication it is patently mistaken.

Second, do “directly” and “indirectly” have any application in what the tradition calls “normal cases of seeing?” In those instances, does it make sense to say that we see directly or that we see indirectly? My answer is that it does not,

and by now the strategy leading to this response should be clear. By analogy with the case of M, we can argue as follows. We saw that when M did what she normally does, prepared and ate her meal in the usual way, it makes no sense to say that she ate the meal directly. We can also dismiss the oddity of saying that she ate it indirectly. But we saw that there were special circumstances where it did make sense to say that she ate the meal (or the meat) directly. In this context, “directly” meant “immediately.” That is, she ate the meal (or the meat) without delay, hesitation, waiting, or temporizing. The point is that “directly” is only used in such special circumstances, circumstances that would contrast with her normal behavior or practice. So, then, arguing by analogy, we are entitled to draw the conclusion that in “normal cases of seeing” it makes no sense to say that we see objects either directly or indirectly. The tradition that holds the contrary view is mistaken.

But if this is so, does it ever make sense to claim that we see anything directly? Does it ever make sense to claim that we see anything indirectly? My answer to the first question is “yes.” I shall describe circumstances of a special kind that justify our saying so. My answer to the second question is “maybe.” The disparity between the two answers is itself justified on the ground that “directly” and “indirectly” do not always function as opposites. But the important point is that if the first answer is correct, we are in a position to assert that a highly qualified form of common sense is true. We do sometimes see external objects without mediation.

## VI: SCRATCHING DIRECTLY AND SEEING DIRECTLY

In order to answer the first question, let us avoid tricky or facile responses. It is a fact, of course, that we do *say* things like “He saw the point directly,” and “The doctor was able to see me directly.” As far as saying goes, we can sensibly use the words “A saw W directly.” But to see the point of a remark is not literally to see an object of any sort. And it is not clear whether “see” is being used literally in the second case, either. It seems to mean something like “The doctor was able to wait upon me immediately,” or “. . . was able to attend to me immediately.” A patient who was immediately admitted into the office of her blind physician might well say “He was able to see me directly.” So neither of these counts as a substantive answer to the question. It is also clear that in both of them “directly” is used in a temporal, rather than in a spatial, sense, as in “The manager stood directly between them.” Now in the theory of vision, it is the latter use that philosophers

have in mind. In this use, they mean that a certain X literally stands between O and EW.

In order to demonstrate that we are not tilting against windmills or proposing to burn straw men, let us look at Moore's "A Defense of Common Sense," where we have an actual historical illustration of our contention. Indeed, in defining a sense-datum as something that one sees directly, Moore carried the whole epistemological tradition from the time of Descartes on his shoulders. Moore originally wished to establish a form of direct realism. He wished to argue that in normal cases of perceiving, an observer O is directly perceiving a sense-datum that is identical with the facing part of the surface of EW (where EW is opaque), and accordingly that one sees at least part of the external world directly. But Moore was also committed to the existence of sense-data. This gave rise to a tension in his system, leading to the idea that X (the sense-datum) that is directly seen cannot be identical with any part of the surface of the opaque object.

The turning point in his theory was a line of reasoning, called the *Argument from Synthetic Incompatibility*, whose conclusion is that the sense-datum, the item that is directly seen, cannot be identical with any part of the surface of the external object. It held that what is directly seen is not part of the surface of a coin, but a mental image. Presumably Moore would have inferred from this result that the facing part of the surface of the coin is seen only indirectly—though he does not explicitly say so. In effect, then, the Argument from Synthetic Incompatibility succeeded in driving a wedge between his commitment to sense-data theory and his commitment to direct realism; and in the end it was the former that won out. What I wish to bring out with these remarks is that the sense that "directly" bears in his complicated train of reasoning is the spatial sense and not the temporal sense. And it is the former, as the case of Moore illustrates, that is employed by the tradition.

This then brings me to the first important point I wish to make about the theory of perception. Let us return for a glance at M. We saw that it was peculiar to say that she picked up the meat directly with her fork, except in the circumstance where "directly" meant something like "right away" or "immediately," in contrast to meaning "waiting a while," "temporizing," or "hesitating." The argument we developed there led to the conclusion that where "directly" bore its spatial sense, we could not say that she picked up the meat directly or indirectly, in part because we could not identify the independent



agents of a two-party interaction. But also in part because it became clear from the scenario that where “directly” carries spatial connotations, the phrase “picking up the meat directly” is a kind of oxymoron. There is some sort of incompatibility in saying both that A picked up EW and that A picked up EW directly—where “directly” is used in its spatial and not temporal sense.

We can generalize from the example, which employs the predicate expression “picking up.”

There is a range of locutions in the language which are like “picking up” in that they play essential roles in the descriptions of certain kinds of acts. Some of these acts are “physical operations” examples of which would be scratching, sanding, polishing, washing, and waxing. Others are connected with what the tradition calls the “use of the senses”—for example, seeing, smelling, and touching. Our line of reasoning inexorably leads to the conclusion that when “directly” and “indirectly” bear a spatial and not a temporal sense, they do not apply to the physical acts mentioned (and to an indefinitely large list of others). We cannot sensibly say that A scratched the table directly. In saying this, one would presumably be drawing a contrast—but what would it be? Would it mean that A had used his fingernails? But instead of what? Suppose A had scratched the table with a fork; would that mean he had scratched it indirectly? The sentences “A scratched the table directly” and “A scratched the table indirectly” are semantic non-starters. Compare these sentences with: “A scratched the table accidentally” or “A scratched the table inadvertently.” The adverbs function significantly in those sentences; they exclude that A scratched the table deliberately or on purpose. They mark out real contrasts in a way in which “directly” and “indirectly” do not.

Well, then, shall we conclude that “A sees X directly” is never significant, let alone true, when “directly” bears its spatial sense? The matter is very delicate, but I think the answer is “no”—despite some strong countervailing evidence. Let us first look at that evidence before examining the factors that dictate the answer “no.” In the epistemological tradition, and especially in the last 100 years, the concept of perceiving is used broadly. It includes not only the concept of seeing but also those of touching, hearing, smelling, and tasting, which function analogously to seeing.

Either these terms do not take “directly” or “indirectly” as modifiers, or in those few instances in which they do, the modifiers lack the kind of appositeness that the tradition requires. Thus, it makes no sense to say that I touched

the table directly or indirectly, or that I smelled a rose directly or indirectly. “Hearing” raises special problems because of the large number of suffixes associated with it, such as “hear from” or “hear about.” With some of these it does make sense to use “directly” or “indirectly.” We can say that I heard about it indirectly, for example, which implies that I didn’t hear it from Smith himself, say, but through an intermediary. But hearing about is not the same as hearing *simpliciter*. We can’t say “I heard the noise directly” or “I heard the sound of the gun indirectly.”

The fact that none of the classical sense-modalities is straightforwardly susceptible to the distinction is thus a strong result, supporting my general argument that in normal cases of seeing we see neither directly nor indirectly. Yet, it would be a mistake to infer from these examples that the tradition is entirely mistaken. For it uses “perceive” not only to include the five sense modalities, but also to include all the varieties of vision: observing, gazing at, noticing, scrutinizing, staring at, and so forth. All of them would be regarded by the tradition as “subcases” of seeing. So to assert that A scrutinized, or observed, or noticed EW would for the tradition entail that A saw EW. Although I agree that an entailment relationship holds for some of these verbs, I am doubtful that it holds for all. My linguistic intuitions tell me that it would make sense to say “I looked right at the keys and didn’t see them.” Or again, that one can and does say “I gazed at him without seeing him.” But the issue is subtle, and I admit that the opposite could persuasively be argued. More to the point, and leaving questions of entailment aside, I claim that there are important differences between A’s seeing Smith, looking at Smith, staring at Smith, gazing at Smith, or observing Smith. Suppose I am seeing Smith for the first time. I might stare at him intently, but I could not be said to be seeing him intently. His physician, worried about him, might observe him carefully, but most persons couldn’t be said to be observing him at all, carefully or otherwise. Nevertheless, let us set aside these objections in order to confront the tradition at its most substantive and strongest point. Let us assume, as it does, that perceiving or seeing includes such “subordinate” visual acts as observing, staring at, looking at, scrutinizing. Then in any visual mode whatsoever, can we ever sensibly say that A sees EW directly?

If we agree to use “see” in this broad way, the answer is “yes.” “Seeing” as so construed does not denote a physical operation or physical act in the way that “scratching” does. It is possible to look at something directly and not possible

to scratch something directly. With certain kinds of objects, say, marbles and billiard balls, it is impossible to scratch their surfaces without scratching them, and conversely. But it is possible to see opaque objects without seeing their surfaces (Venus is a good example). From these examples, I infer that seeing is not fully a physical operation; or to put the point in linguistic terms, that the logic of “see” differs in important ways from that of “scratch,” “wash,” and “polish.” The argument I am now about to advance provides further support for that finding. For I will now show that there are circumstances—they will have to be very special—in which it makes sense to say that someone perceived (observed, saw, etc.) an external object directly, where “directly” bears its spatial sense. The following is a case of that sort.

Physicians generally advise people who wish to see an eclipse of the Sun not to look at the Sun directly. “Directly” in this context means perceiving or observing the Sun without any intervening devices, such as a smoked glass, a periscope, or a camera obscura. In such cases, the darkened glass is an intermediary. It allows one to see the Sun without seeing it directly. A sensible contrast is operative. It is the contrast between looking at the Sun without protective equipment and looking at it with protective equipment. The example, as drawn, is broad; it is designed only to show that sometimes it makes sense to say that one can see an opaque object, like the Sun, directly. As I mentioned, finer discriminations could be drawn within that scenario. There are differences between seeing the Sun (out of the corner of one’s eye), looking at the Sun (through a smoked glass), staring at the Sun (hypnotically as it sets), and observing the Sun (carefully if one is an astronomer). For the tradition, all of these discriminations would be subsumed under the rubric of perceiving the Sun. A person who disregarded medical advice may find that his or her eyes were injured. The cause of the injury could be described as the person’s having looked at the Sun directly. It is thus clear that there are conditions in which one can truly be said to be seeing an opaque object (say, the Sun) directly. In traditional language, this would be a case of seeing an external object directly.

## VII: SEEING INDIRECTLY

I mentioned earlier that we should not assume that a person who does not see an object directly is therefore seeing that object indirectly. With respect to the preceding example, how shall we describe what a person sees when he or she

looks at the Sun through a smoked glass (through a glass darkly, as it were)? Shall we say that the person saw the Sun indirectly? It is, of course, true to say that the person did not see the Sun directly. Does it follow that if A did not see EW directly, A saw EW indirectly? I do not think it does. My intuition, in fact, is that it never makes sense to say that A sees EW indirectly. But there are counterarguments that make me hesitate firmly to draw this conclusion. I give one here.

We said that in the preceding scenario, the physician who advises persons not to look at the Sun directly is drawing a certain contrast by using the term “directly.” He is recommending that those persons use an intermediary, something standing between them and the Sun. If, let us say, the intermediary is a camera obscura, the contrast that is being drawn is between looking at the Sun without any protective device and using a device in which one does not see the Sun itself but a reflected image of it. This is the “item” that appears reflected by the camera obscura. That item may in a number of ways be different from that which one would have seen had one looked at the Sun directly. It might be smaller, less intense, and it might lack certain details that direct vision provides.

Surely this case satisfies the classical description of seeing an intermediary directly, and through the intermediary, seeing the Sun indirectly. I have no doubt that any person who talked this way, given the preceding scenario, would be understood. He or she would be understood as having looked at the Sun by means of a special instrument instead of with the naked eye. He or she would be understood not to have looked at the Sun directly. The question I am undecided about is whether we can say, then, that the person saw the Sun indirectly. Perhaps this would be a case in which special circumstances obtain, of a sort that would allow us to use the word “indirectly” to describe what we saw. The example is interesting because it shows how unusual the circumstances must be before we can use the term “indirectly” in this way. The tradition, of course, has argued the opposite point of view. It has held that one always sees representations or images directly and that if one sees the external world at all, it is always seen indirectly. The presupposition behind such talk is that seeing indirectly is a common phenomenon.

### **VIII: SEEING IN NORMAL CIRCUMSTANCES**

The circumstances in which it is possible to say that one did not see the Sun directly, but used protective devices, are special. We can use the terminology

we do in such cases because a sensible contrast is being drawn. The case just discussed raises a general question. Can we say in every case where an intermediary is being used that one is not seeing things directly? The answer is “no,” and the reason for this is that in most circumstances the devices in question are not thought of as affecting the observer’s observation of the thing or things being observed. Let’s take a simple example to illustrate the point.

I look at the table I am writing on without my glasses. The light is good, and I am looking at the table with a special purpose in mind. I want to see if it has any scratches in its surface. I don’t see any so I put on my glasses and look again. I still don’t see any scratches, but what I see looks a little different to me—the visual image seems enlarged. Indeed, I can even test that impression by taking my glasses off and looking, putting them on again and looking, and so forth. According to the tradition, because what I apprehend with my glasses on is larger than what I apprehend with my glasses off, the two things I apprehend cannot be identical. More than that, at least one of the two things I apprehend cannot be identical with the surface of the table, and possibly neither is. The traditional view is that what I apprehend with my glasses on is an image of some sort, and accordingly, that by using my glasses I am apprehending an intermediary directly and the table (or part of its surface) indirectly. Is this line of reasoning cogent?

Well, in this case, we do have an operative contrast. I see the table without my glasses, and then I see it with my glasses; and it looks different or slightly different in the two cases. But given that these are the facts, would it be sensible to describe them by saying that when I have my glasses off, I am seeing the table directly and when I have my glasses on, I am seeing it indirectly? The answer I submit is “no.” If we were to describe the situation in that way, most persons hearing what we say would be puzzled about what we meant. But then what is the difference between the case of looking at the Sun through a smoked glass and looking at the table through eyeglasses? Don’t we have operative contrasts in both cases? And if we do, shouldn’t we say that in both cases we are not seeing the EW’s we are looking at directly?

Again the answer is “no.” The cases are different. The correct response to the dilemma is that the latter case falls under the rubric of normal seeing in a way in which the former does not. Using one’s eyeglasses to see a table is not a special way of seeing something in the way that using smoked glasses is a special way of seeing the Sun.

This example is important. It is just one of a number of examples that could be provided to establish that we do not characterize normal cases of seeing by adding the epithets “directly” or “indirectly” to them. From a scientific standpoint, for example, air is a medium that “stands between” O and EW. The question is how do we talk about the medium and its effect on EW. If the day is calm and the air is clear, the air is not seen by O. O is looking at a tree from his bench in the park. We would not normally say of O that he was seeing the tree directly because the air is clear. Suppose, in contrast, that the day is very hot and heat waves are rising from the ground. The tree now looks wavy to him, like something out of a painting by Van Gogh. Shall we say that O is seeing the tree indirectly because it looks wavy to him—because he can see the heat waves rising from the ground. We don’t, and we wouldn’t. We’d say that the tree looks wavy to O because of the heat waves rising from the ground, but we wouldn’t say O sees it indirectly. That is the way a tree should look under those atmospheric conditions.

These cases support the position I have been advancing throughout this chapter. As I indicated earlier, “directly” and “indirectly” have a limited range of uses and cannot be indiscriminately applied to all situations. With respect to a concept like “seeing,” they are hardly used at all. And most important, with respect to what the tradition has called “normal cases of seeing,” they are not used at all. A man gazing out the window at a tree, with no special purpose in mind, though noticing that the tree looks very green today, is not seeing the tree directly, nor is he seeing it indirectly. The fact that he is seeing it through glass is irrelevant with respect to the question whether he is seeing it directly or not.

What counts as a “normal case of seeing” is impossible to describe in general terms. If we look at an eclipse of the Sun through a smoked glass, the situation would be characterized as special—because an eclipse of the Sun is a special event, and/or possibly because looking at it through a smoked glass is special. To look at my table with my glasses on is, in contrast, to be assessed as a normal case of seeing—unless there are specific reasons for describing it as otherwise. It is an analytical truth that most of the time cases of seeing are normal cases of seeing. The important logical point is that deviant cases make sense only against such a neutral background; special circumstances are special because they diverge from the norm. They can thus be explained in contrast to what normally prevails. But the normal itself cannot be characterized

by such special terms. In effect, the great mistake of the classical tradition consists just in this: namely, to apply such special terms to what by agreement is not special. The result is paradox and incoherence.

Accordingly, we can say that most of the time seeing something with one's glasses on, or looking at oneself in a mirror, or looking at a garden through a window, is to be classified as an ordinary case of seeing. The notion of an intermediary does not play a role in the description of such cases. A mirror is an intermediary in some cases but not in others. In general, then, we can conclude that insofar as something is to be characterized as a normal case of seeing, we cannot characterize it as a case in which one is seeing directly or is seeing indirectly. The tradition that asserts the contrary is deeply mistaken.

Reflecting on the prevailing epistemological tradition in the West and on the views we have just considered which well exemplify it, we can see that it is (and they are) dominated by two presuppositions. The first of these is the assumption that it makes no difference to a correct analysis of seeing whether both perceiver and the perceived are immobile. The second presupposition is that what is true of a carefully selected set of examples of things seen is true in general of things seen. I think most cognitive scientists subscribe to this second principle: It is the basis of their commitment to psychology as a science. I shall now explain why I think both of these principles should be discarded and what I offer as an alternative to the theories that are based upon such assumptions.

Let us begin by describing the effect that motion has upon what one sees.

It is characteristic of the epistemological tradition to present us with partial scenarios and then to demand whole or categorical answers as it were. The tradition insists upon knowing how we should describe what we see under the partial conditions it delineates. Consider our friend, O—the so-called observer. What is O doing in the scenarios given to us by Moore, Broad, Price, and Russell? Is O standing, lying down, sitting, walking around? We are not told. How is O looking at the object in question? Is O staring at it, scrutinizing it, observing it? Why is O staring or gazing at it, if this is what O is doing? Is the object moving, rotating, spinning, immobile? How bright is the light, and where is it coming from? The scenarios remain mute with respect to these queries. Insofar as one can infer from what the creators of such montage depict, it would seem that their examples make sense only when O seems to be immobile, seated, and staring fixedly ahead at something, say, a tomato or a penny, which itself is motionless. Well, suppose we expand the scenario, not

even drastically. We'll find that these changes greatly affect how we would describe what we see.

Let's begin by keeping O seated. O has just entered an art gallery and is examining (or better, just looking around at) its various objects. Most of them are hung on walls, but some are suspended from the ceiling. One of these is a tomato, cleverly suspended by a string which seems to disappear into its interior but which nevertheless somehow holds the tomato up. The tomato itself hangs right above eye level when one is standing. O sits down and looks up at the tomato when Moore, who owns the gallery, walks over. He welcomes O and then asks two questions: "Can you see the tomato directly? Can you see its surface?"

O has just finished reading the earlier parts of this chapter and is not disposed to answer the first question, regarding it as nonsense under the circumstances. How should O respond to the second question? Can he see the surface of the tomato? (Moore would later like to ask O if he can see all or only part of the surface, and see that part directly, but for the moment he'll have to wait.) As we muse upon what has happened so far, it is difficult for us to say how O should respond to the question. We just can't answer. As far as we know, O just came into an art gallery and sat down. O looked up and saw a tomato suspended by a string from the ceiling. Now why would anybody ask him if he could see its surface? Did he come there to see its surface—and if so, why? The scenario is mute on this point—yet it is crucial to a sensible answer.

The tradition, of course, assumes that it is perfectly in order for Moore to ask O this question. Either O can see the tomato or he can't—what could be clearer? But if the question is *tutto a posto*, is in order, its mover must have had some reason for asking it; and in so doing, must have presumed that O had some special reason for looking at the surface of the tomato. What could that be? Well, perhaps O wished to buy an art object, in this case the suspended tomato, and hang it from his ceiling. Perhaps it is for sale. We don't actually know any of these things, but if we expand the scenario along such lines, we can begin to make sense of the question. So O may wish to buy the tomato *cum* string, but before doing so he may wish to know whether the tomato is rotting. How long has it been up there? Is it still solid enough to last for a while if O hangs it from his ceiling? Perhaps Moore believes that O is thinking of buying the tomato and that is why he asks the question. Hence we can perhaps infer that O is looking at, even scrutinizing, the tomato's surface to see if it is



blemished and is thus beginning to spoil. If it isn't, he'll buy it. We have added considerably to the original scenario. Now obviously the question finally makes sense.

But it doesn't. The question Moore asked O, "Can you see the surface of the tomato?" makes a specific reference to seeing and to a surface. Given our expanded scenario, we now might understand why O would want to see the surface of the tomato. He had a special purpose in mind: He wants to buy the tomato and to assure himself by looking at its surface that it is in good condition. So we've been told O's purpose—but so far nothing else. We don't know why the question contains the word "see." Was O asked if he could see the tomato because Moore presupposed that O couldn't touch or feel it, or didn't want to? Why is Moore asking if O can "see" it? Perhaps he thinks that there is something wrong with O's vision—that he's myopic or that he is too far away from the tomato to see it. Is the light in the gallery too dim? Under some of these conditions the question would make sense—provided, of course, that we are also told why O especially wishes to see the surface of the tomato. On the other hand, if some or all of these conditions did not prevail, the question would not make sense. Both question and answer couldn't be more typical of the epistemological tradition.

To see how pointless both the philosophical question and answer are, and how the assumption of the immobility of the object contributes to such nonsense, let us explore the example a little more deeply. It did not indicate whether the suspended tomato was in motion or, if so, what the nature of the motion was. But if the tomato is in motion, this changes the scenario considerably. Moore and the tradition talk as if what is seen is always motionless. Suppose the string holding up the tomato is a device for rotating it; then, depending on some of the background factors mentioned, the question whether O can see its surface may be in order. But if it is, and if the tomato is rotating, we discover something very important. We cannot answer the question in general. For if the tomato is rotating very slowly, O—who is seated and who has a special purpose in mind for wishing to see its surface—might respond to Moore by saying that he can see its surface. But if its rotation begins to increase, O might at some point deny that he can see its surface. He might say the tomato is spinning too fast. He can see the tomato all right, but not its surface. (This is another example, contra Moore, where we can say that one can see an object without seeing its surface.) It is a fact that if an object is rotating

rapidly, one cannot see its surface at all: one cannot see blemishes, marks, even colors if the object is moving very swiftly. Accordingly, whether an object is spinning will make a difference with respect to whether one can see its surface.

The point being made now concerns whether O can give a general answer to the question whether he sees the surface of the ball. Moore, Broad, Price, *et al.*, think that their theories provide such answers to the question. This is what I deny. I affirm instead that such an answer is possible only for a particular case. A particular case will contain factors that other cases do not, and these will make the essential difference to any sensible answer.

Let us exploit this point as we continue with our scenario. We have seen that whether the tomato is spinning will make a difference as to whether O can see its surface. But without such specific information, no general account of what any O can see can be correct. But we can add more to the scenario; for the speed at which the tomato is spinning makes a further difference. And if O now rises from his chair and begins to move around the tomato, that will make a difference as well. If the ball is rotating slowly and O is moving around it at a corresponding speed, keeping the same point on the tomato in view at all times, then O may wish to say that he sees its surface at all of those times. He may wish instead to say that he can only see part of its surface—for he is always facing the same point as he walks around the tomato. Now one can ask O if he has seen all of its surface, and the answer will be “no.” So what counts as a sensible answer to the previous question will not count as a sensible answer to the latter. But if O had remained seated and the ball had rotated both slowly and completely while he was looking at it then, he could—depending on all the other circumstances I have mentioned—have sensibly said he was seeing all of its surface.

My conclusion is that no simple account, purporting to give a true answer to all questions about seeing, will do justice to this complexity of factors. Such simple accounts gain their plausibility by sterilizing the conditions in which they pose such questions as “Do we ever see a whole object directly?” In particular, they assume that both object and observer are motionless. These assumptions are to be rejected and with them the theories upon which they are based.

The second presupposition that I reject is the principle that what is true of a carefully selected group of examples is true in general of things seen. It would require a detailed exegesis of the epistemological literature from the seventeenth to the twentieth centuries to demonstrate that nearly all writers

on perception take a limited gamut of examples to be paradigmatic of all perceived entities—and that task would be impossible to complete here. I also think it would be unnecessary. We have described some theories that exemplify the tradition in enough detail to make my claim persuasive. There is a tendency to concentrate upon things that have special properties, such as being round. A tomato is round, and so is a penny. But they are round in different ways. A tomato is spherical, and a penny is not; the former has special properties because it is spherical. So although a penny is round, it lacks some of the properties—and from a standpoint of the theory of vision—some important properties just because it is not a sphere. For instance, a tomato has exactly one surface; its surface is continuous and is not interrupted by edges. But a penny has not one but two surfaces, and they are separated by an edge. How we speak about round objects will thus depend on the differing ways in which they are round.

There may be circumstances in which it makes no sense to speak about the (the only) surface of a penny, for it has two surfaces. But there may also be circumstances in which it does make sense to speak in this way. For a numismatist, or a coin collector, if the upper surface of a coin is scratched, in effect the whole surface is scratched, and the value of the penny is diminished. The conditions for sensible talk are thus severely context-dependent.

But apart from this sort of case in which two things are both said to be round, there are all sorts of things we see—opaque or otherwise—which have surfaces and which are neither spherical nor circular. Water lying flat in a lake; a tennis court; a long, straight, paved road; and even some types of mirrors would be examples. Some of the things that can sensibly be said of tomatoes cannot be said of mirrors. We cannot sensibly ask what the interior of an ordinary mirror looks like, but we can sensibly ask that question about the interior of a tomato. More than that, some answers to questions about the surfaces of spherical objects would be incoherent answers to questions about nonspherical objects.

Consider stretches of things: roads, lakes, silk sheets, tennis courts, unfolded accordions. We can say, depending on where we are sitting, that we can see the whole court. So Moore's idea that at most we can see only part of an opaque object can't be right.

Had he changed examples, he might have changed his mind. One can't see the whole of the surface of Lake Victoria from its southern shore, not because

the part that one can see somehow blocks one's seeing the rest of the surface, but because the lake is too long. It is about two hundred miles long, and given the curvature of the Earth, it is impossible for an observer standing at the southern shore, and at ground level, to see all of its surface—some of it curves out of sight. But that the part of its surface that one sees does not block the rest can be confirmed by noting that if one were gradually to rise above the lake, say, in an airplane, one would eventually see the whole surface of the lake—indeed the whole lake. But if a tomato is lying on the ground, then no matter how high one rises there will be part of its surface one will not see (if the tomato is motionless, etc.). So the reason that one cannot see all the surface of a tomato and can see all the surface of a lake is that the former is spherical and the latter is not. Moore's basic thought, very much in the spirit of the tradition, that a part of the surface of EW will invariably block O from seeing the rest of the surface of EW, stems from starting with too limited a set of examples.

The second deep presupposition of the tradition must thus also be rejected. The kind of examples it has traditionally employed are indeed not paradigmatic in the ways that its practitioners have assumed. When one broadens the range of examples, one finds that such theories do not accommodate the facts of perception.

In contrast, my approach is example-oriented, context-sensitive, and piecemeal in its appraisal of perceptual situations. As such, then, what does it say about the human perception of the external world? It holds that depending on the contextual situation, it will be sensible (and sometimes true, sometimes not) to say that one who looks at, gazes at, stares at, and so forth an object may be said to be seeing the object, to be seeing the whole object, to be seeing all of the object, to be seeing each and every part of the object, to be seeing the object itself; and (taking a breath) to be seeing the surface of the object, each and every part of the surface of the object, all of the surface of the object, only the surface of the object, and part of the surface of the object; and (taking another breath) sometimes to be seeing the surface, all of the surface, the whole surface, and so forth of the object, and at the same time, to be seeing the object, all of the object, the whole object, and so on; and (taking another) sometimes to be seeing each of these items directly and sometimes not. Each of these characterizations fits some situation in which human percipients find themselves and does not fit others. What I add is the assertion that none of

them fits every situation in which those percipients find themselves. We cannot always sensibly say that we see whole objects or whole objects directly; nor can we always say that we see surfaces or parts of surfaces when we see opaque objects.

What I am proposing is thus an alternative to the two most widely accepted forms of realism in the theory of perception. I am hoping thereby to break a seemingly intractable deadlock that has confounded the theory of knowledge for more than four centuries.

## NOTES

1. It is surprising and a genuine oddity that although every dictionary I have consulted has a set of definitions for “ordinary” and for “language,” no dictionary, including the *Oxford English Dictionary*, has a definition or even a subentry for the expression “ordinary language.” One wonders if the term does not occur in everyday speech and is thus a term of art employed mostly by theorists of language. It is a puzzle for which I have no answer.
2. Charles Caton, *Philosophy and Ordinary Language* (Urbana: University of Illinois Press, 1963), vi.



### 3

## The Method of Cases

A third (but hardly the last) component of informal philosophy has no traditional name. I shall call it “The Method of Cases.” It has affinities with common sense and ordinary language, especially in its capacity to resolve philosophical problems, but it differs from both. In the previous chapter, I mentioned—indeed stressed—that many philosophical conundrums arise from incomplete scenarios and that when the scenarios are expanded the difficulties tend to evaporate. I illustrated this point with an example in which someone is looking at an opaque object and is asked a typical philosophical question about how much of the object or its surface that person can see. I indicated that it was characteristic of such queries that we were not told why somebody was looking at the object, why that person wanted to see its surface, whether he or she was standing still, or whether the object was moving, and so on. Yet the person who asked the question (a traditional epistemologist) demanded an informative answer. In this chapter I will give some examples of what I call “cases,” and why variations in such cases make a huge difference in answering a question sensibly. Ordinary language will play an essential role in this process.

Let us begin with an example of a case. Suppose I were to walk into a room in which a male colleague is sitting at a table. The colleague is apparently typing on a computer; but there is no computer and no keyboard on the table; yet he is drumming away as if such devices were present. The question is: “What

is he doing?” One answer that can be excluded is that he is typing out a text or word processing a document. This option can be excluded on the ground that it is impossible to produce a text unless there is an existing mechanism for doing so—a typewriter, or a computer. If the individual insisted that he was word processing, was in the process of writing an essay, one would be puzzled. Such an answer would suggest that the colleague is demented. If he said that he was practicing typing it might be explained to him that it is impossible to engage in such an activity unless one has the right equipment. If he nevertheless persisted in his behavior almost any normal adult would be perplexed, since both answers would be incomprehensible. As it stands, and without further probing, most persons would not know how to answer the question: “What is he doing?” It is not merely that the scenario is incomplete or that we don’t understand what he is saying; it would seem that a sensible answer to the question is not possible without a more extensive exploration, perhaps of a psychological sort. I call this situation a case. A case is a form of behavior or a situation, often, but not always, accompanied by a linguistic expression or various linguistic expressions. The case just described is admittedly hypothetical and hence not standard but it does give the reader some idea of what I mean by a “case.”

We can contrast this admittedly odd situation with a standard case. I am thumbing through a large book when a friend enters my office and asks: “What are you doing?” I respond by saying that I am checking the *Guinness Book of World Records* to find out which player got the most hits in a 154-game baseball season. My behavior consists in turning some pages, finding the right category, and then looking to see if there is an answer to the query. My response to my friend makes perfect sense. The behavior and the language coincide and can be understood by most ordinary persons.

Let’s describe two cases that well-known philosophers—Moore and Descartes—have produced. We shall see that their writings lead to perplexities not radically dissimilar from the case cited at the outset of the chapter.

### **I: THE FIRST CASE: MOORE’S PROOF**

In his famous essay of 1939, “Proof of an External World,” G. E. Moore said that he was taking up a challenge proposed by Immanuel Kant, who wrote: “It still remains a scandal to philosophy . . . that the existence of things outside of us . . . must be accepted merely on faith, and that, if anyone thinks good to



doubt their existence, we are unable to counter his doubts by any satisfactory proof” (*Critique of Pure Reason*, translation by N. K. Smith, Bxxxix, note, p.34).

At the beginning of his paper, Moore states that,

There seems to me to be no doubt whatever that it is a matter of some importance and also a matter which falls properly within the province of philosophy, to discuss the question what sort of proof, if any, can be given of “the existence of things outside of us.” And to discuss this question was my object when I began to write the present lecture.<sup>1</sup>

Moore saw himself as picking up the gauntlet thrown down by Kant, namely to rid philosophy of a long-standing scandal by giving such a proof. Near the end of the essay, Moore says:

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 others.<sup>2</sup>

Moore’s “large number of different proofs” are essentially variations of the first proof he presents, and which is generally known as “Moore’s proof.” As he initially formulates it, the argument consists of two premises and a conclusion. As we shall see, his proof involves a bit of behavior and some talk and thus fits well within my characterization of a case. His first formulation runs as follows:

1. Here is one hand.
2. Here is another (hand).
3. Therefore, two material objects exist.

Throughout the essay, for reasons that are too complicated to examine here, Moore presupposes that hands are things that exist outside of us, an assumption that a number of commentators have criticized. They claim that all that Moore has shown so far is that from the fact that this hand now exists and that that hand now exists, two hands now exist. That is a simple numerical

calculation, an application of the theorem that  $1+1=2$ . From the truth of the theorem it does not follow that anything exists “outside of us.” An idealist, such as Bishop Berkeley, could admit that each of Moore’s hands now exists, but could argue that a hand is simply a heap of ideas, that all ideas exist in the mind; and hence that hands are not external objects. As Wittgenstein points out:

The idealist’s question would be something like: “What right have I not to doubt the existence of my hands?” (And to that the answer can’t be: I *know* that they exist.) But someone who asks such a question is overlooking the fact that a doubt about existence only works in a language-game. Hence, that we should first have to ask: What would such a doubt be like? and don’t understand this straight off” (O.C. 24).

So Moore’s presumed proof, as Wittgenstein points out, does not establish that material, non-mental objects exist. As Wittgenstein suggests, the idealist’s question demands a different sort of answer, namely that a hand is not composed of ideas, as the idealist supposes. And that requires a philosophical argument, demonstrating that hands are mind-independent objects. Moore, of course, did not see that this is the issue, and so his statement fails as an answer to that deeper question. The quotation from Wittgenstein also suggests that no one except a philosopher doubts that the so-called “external world” exists. Since the behavior of most ordinary persons is habitual, the issue never arises for them. They simply wake up in the morning and go about their business. They do not wonder whether they are still sleeping and certainly would be astounded to find that philosophers, from Descartes to Moore, have been concerned about whether we can ever distinguish dream experiences from waking ones. But let us not further explore this objection, and concentrate on the proof itself. We can see that our presentation of the “proof” is not an exact formulation. Moore’s paper seems to have been written with a live audience in mind. For example, he utters (1) while making a certain gesture with his right hand, and (2) while making a certain gesture with his left hand, so the “proof”—at least in its form as a talk—contains some behavioral components. These seem to have been designed to explain to his auditors that each thing he has wiggled is a human hand. We thus have here a case in the aforementioned sense, namely an utterance accompanied by a bit of non-linguistic behavior.

Moore makes two interesting comments about the proof. He distinguishes between knowing that a proposition is true and being able to prove that it is. One of his contentions is that he is unable to prove (1) and (2) unless he can prove that he is not now dreaming; and this he asserts he cannot do. Why he offers this concession is not clear, but in any case it is irrelevant to the objection I wish to make below. His second comment is about his argument; he is concerned to explain why it is a proof. He mentions that a proof must satisfy three conditions: (i) the premises must be different from the conclusion, (ii) the premise must be known to be true, and (iii) the conclusion must follow from the premises. He states that each of these conditions is satisfied by his demonstration and hence it is a genuine proof. He anticipates an objection that in fact was advanced by later critics [that he cannot “prove” (1) and (2)] and rejects it on the ground that for a proof it is unnecessary to prove the premises as long as they are known to be true. He asserts that he does know both premises to be true, and on this basis, he contends that his proof is indeed sound.

Moore does not explain how he knows that (1) and (2) are true. He simply, but vehemently, asserts that he does. Here is what he actually says:

I certainly did at the moment *know* that which I expressed by the combination of certain gestures with saying the words “There 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 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.<sup>3</sup>

Let us set aside the question of whether it is necessary for Moore to prove these propositions. As I will argue in what follows these are not the key issues on which the overall argument turns. Before questions of proof or cogency arise, it is required that one show that propositions (1) and (2) are used by Moore in those particular circumstances to say something cognitively significant. I will contend that his remarks are empty of such content and that the proof fails for that reason—it is not the only reason, of course, but it is a criticism that Moore never considers and that goes to the heart of what he is

attempting to do. I will make use of the method of cases to illustrate why (1) and (2) lack conceptual content in the context in which Moore asserts them, and accordingly do not establish the thesis—that objects exist “outside of us”—that Moore is evidently trying to prove. My objection depends on showing that his two premises do not meet the criterion of what counts as an instructive remark.

Let’s begin with a standard, straightforward case in which “Here is one hand” might be used instructively. Suppose a truck, driving on the lower span of the San Francisco-Oakland Bay Bridge, and carrying a large load of gasoline, has hit a guard rail and burst into flames. The heat, which is intense, has melted the steel girders on the upper span, leading to a collapse of a segment of it. Persons driving on the lower span have been trapped beneath the collapsed concrete and steel portions of the upper deck. Rescuers might find whole (or even parts of) persons buried beneath the debris. After removing some fallen material they suddenly see something exposed but not enough of it for positive identification. As they continue digging more of the object is uncovered. Suddenly one of the rescue party might say “Here is one hand; there may be another close by.” In the scenario just described, the remark is sensible. He is using it to inform his colleagues that what he has just come across is part of a human body.

We shall now contrast this case with another in which “Here is one hand” is being used to say something that is not informative. This involves a slight shift in the description of the case. Let us assume that the members of the rescue party, working as a team, had simultaneously come upon a hand sticking out of the rubble. They gather round the hand, look at it, look at one another, but say nothing. Still, there is a common understanding, as revealed by their actions, that they all know that what they are seeing is a human hand. They also know that each of them knows it is a hand. Now if one of them, after a pause, were to say: “Here is one hand,” the remark would not be informative to the others. It would be pointless because the speaker, in saying those words in that context, and in those circumstances, would imply that he supposed his colleagues had not noticed and therefore had not identified the object as a hand. But since they had all seen the object at the same time, and each knew that all the others knew it was a hand, the remark would be uninformative. It would be grammatically well-formed and it would be understood by the others. But it would not play the usual role that assertive language does in being informative to others. In

Wittgensteinian terms, it would be a case in which language has gone on a holiday and fails to make a substantive point. It thus requires only a small change in the description of the scene to produce a different case.

These comments bring us to Moore's use of "Here is one hand." Let's assume that Moore is giving a lecture at Cambridge. The lecture is being given to a seminar, a group that most likely would consist of professional philosophers and a number of graduate students. Let's also assume that most of the audience is well acquainted with Moore, having known him as a colleague or as a teacher, and finally that the light in the room where Moore is lecturing is good and accordingly that there are no visual difficulties that hinder the members of the audience from seeing him. Now Moore says: "Here is one hand" and "Here is another." He also wiggles each of his hands to make sure that the audience is fully aware that the objects he is referring to are indeed his hands. The important question here is: "What is Moore trying to communicate to his audience by the utterance of these sentences?" Moore's procedure suggests that he is trying to inform his colleagues of something they haven't known previously, as if they had not known that he has two hands and that the objects he is wiggling are his hands. It would thus seem that he is announcing a kind of discovery, as if his case were like that of our first scenario, where a rescuer is trying to inform his colleagues of a hand he had just discovered. But it is clear that it isn't. If Moore were missing his hands, or if the objects he was referring to were not real hands, or if the lack of light in the room prevented some of the audience from seeing what he wished to exhibit, or if Moore were buried in debris, his remarks would be informative. Under the last condition, they would be used to inform his listeners that what he was showing them were indeed his hands. In that scenario it would suggest that Moore was in need of assistance and that is why he is wiggling his hands.

But it is clear that none of the audience is in doubt that what Moore is wiggling are his hands. Since all of them are familiar with Moore, have seen him in diverse contexts, such as in a classroom or attending one of Wittgenstein's lectures, they are in no way lacking any piece of information about Moore's physical condition. Furthermore they are in no doubt that Moore is not buried in debris and needs their help. In other words, they are in no doubt that Moore is showing them a pair of his hands and that the objects he was holding up were not fakes or facsimiles. In short, we cannot fit Moore's procedure into the sensible situation we described above.

The instance I have quoted is typical of Moore's method in philosophy. As we have seen, Moore states in the cited quotation that he knows that the objects he is wiggling are his hands. But the peculiarity of the case is that he is assuring his audience of a fact that nobody is in doubt about. Both Wittgenstein and Norman Malcolm, but for different reasons, were aware that Moore's comments did not jibe with the contextual situation they were made in. Both of them bring out the peculiarity of Moore's general procedure as a philosopher. Wittgenstein says that in everyday life one uses assertive language in order to communicate a piece of information that is not known to others. But Moore's technique differs from such common usage. He purports to be imparting information to others, but it is information they already have. As Wittgenstein says: "Why doesn't Moore produce as one of the things he knows, for example, that in such-and-such a part of England there is a village called so-and-so? In other words, why doesn't he mention a fact that is known to him and not to *every one* of us?" (O.C. 462). Malcolm has a related but slightly different objection. He writes:

The first respect, therefore, in which Moore's usage of the expression "I know" in the philosophical contexts we are considering, departs from ordinary usage is that Moore says: "I know that so and so is true" in circumstances where no one doubts that so and so is true and where there is not even any question as to whether so and so is true. It will be objected: "His opponent has a philosophical doubt as to whether so and so is true, and there is a philosophical question as to whether so and so is true." That is indeed the case. What I am saying is that the philosophical doubt and the philosophical question are raised in circumstances in which there isn't any doubt and isn't any question as to whether so and so is true. Moore's opponent would not raise a philosophical question as to whether it is certain that an object before them is a tree if the object were largely obscured or too distant to be easily seen. If he said "I wish to argue that it isn't certain that that object is a tree" and Moore replied "I can't tell at this distance whether it is a tree or a bush," then Moore's opponent would change the example. He would not want to use as an example for his philosophical argument an object with regard to which there was some doubt as to whether it was a tree. The use of an object as an example for presenting his philosophical doubt is spoiled for him if there is any doubt as to what the object is. It must be the case that there is no doubt that the given object is a tree before he can even raise a philosophical question as to whether it is certain that it is a tree.<sup>4</sup>

Malcolm's point is well-taken. Nobody in the room where Moore was giving his lecture doubted that he had two hands. But if that is the case, Moore's assertion does not fit the sort of context we first described above. Although his two sentences are lexically in order and are well-formed, they are not being used to inform any of the audience of anything new. As such they are pointless.

In *On Certainty*, there is a plethora of examples in illustration of Moore's failure to see that some of his characteristic remarks lack appropriate contexts. For instance, in *O.C.* 84, Wittgenstein writes:

But Moore chooses precisely a case in which we all seem to know the same as he, and without being able to say how. I believe, e.g., that I know as much about this matter . . . as Moore does, and if he knows that it is as he says, then I know it too. For it isn't, either, as if he had arrived at his proposition by pursuing some line of thought which, while it is open to me, I have not in fact pursued.

Again, in *O.C.* 100, Wittgenstein says:

The truths which Moore says he knows, are such as, roughly speaking, all of us know, if he knows them.

In *O.C.* 250, Wittgenstein embroiders his objections to Moore's practice:

That I have two hands is, in normal circumstances, as certain as anything that I could produce in evidence for it.

That is why I am not in a position to take the sight of my hand as evidence for it [my translation].

Let us now develop another variation on the original case. This requires a more robust change of scene and it is a case in which the utterance of the words, "Here is one hand," is significant but misleading. We should therefore distinguish it from the previous case.

Suppose that while digging through rubble that had fallen from the upper deck, one of the rescue party had cut his hand badly on a piece of steel or a rock. He is taken to the emergency room of a nearby hospital. A doctor enters. The member of the rescue team says to him: "Here is one hand." He does not say in this case what the doctor might have expected, namely "I have injured my left hand. I have cut it here and it is bleeding." The statement the injured

individual makes is not superfluous or pointless, although one might argue that it is on the ground that it resembles the case just described above. The argument to that effect would be that, in saying “Here is one hand,” the injured rescuer is presumably telling the physician something he obviously knows so that his remark is redundant. But I claim that it is a mistake to assimilate this case to the previous example. Why is that so? The sentence the injured person is uttering would normally suggest to the doctor that there is something about the object being shown to him that might lead him into thinking that it is not a hand. But to convey that impression is not to say something superfluous. It is to say something significant, but misleading. It would be as if I had said in responding to the query of a census taker: “All my children are under twelve,” when I don’t have any children. But in this scenario, the remark is being used as if it were designed to forestall a certain assumption—that there is something unusual about the object the speaker is showing to the physician.

Now if the patient did not mean to suggest that there was something unusual about the object being shown to the doctor and yet uttered those words what would he be trying to communicate? If there is nothing unusual about the rescuer’s hand, except that it has been damaged, his words would be misleading. It is in general true that to understand a sentence depends at least in part on the context in which it is uttered. The normal idiom, in the case being described, would be for the injured individual to say to the physician: “I have injured my hand. Here is where it is bleeding,” and so forth. That idiom is normal because its use presupposes a standard conversational scenario in which the speaker is taking for granted that the doctor is in no doubt that what he is being asked to examine and treat is a human hand. But if the patient began by saying: “Here is one hand,” he would be presupposing that the doctor was or might be in some doubt about the nature of the object he was being shown. In raising that specter the utterance is misleading. In the previous scenario, Moore is not misleading his audience. They know that what he is showing them are his two hands. But in that context—as Wittgenstein and Malcolm point out—his remarks are not informative but are pointless. They fail to communicate anything the audience does not already know. That his two premises lack such significance is the major problem with Moore’s proof.



**II: A SECOND CASE: DESCARTES AND THE OTHER MINDS PROBLEM**

Diane and Robert have been married for nearly eight years. They have one child, Donald, who is five. Diane is a high school teacher and has a three-month vacation in the summer. Robert is a trial lawyer. Like most of his colleagues he works about sixty hours a week. He does have a one month break from his duties which he can take when there are no serious cases pending or in hand. In the summer of 2007, Diane decides to go to Hawaii for a much needed holiday. Robert is in the middle of a trial and cannot accompany her. She takes Donald with her. About two or three weeks after she leaves, Robert receives a letter from Diane stating that after thinking about the matter for several years now, she would like a divorce. She says that being away from him has enabled her to reach such a decision and that she will institute divorce proceedings when she returns. In her letter, she mentions that she has never been happy in their marriage. Robert is puzzled by her remarks. Like all married persons, they have had occasional disputes; but from his perspective none of them has been serious. He believes that they have been a compatible couple, deeply in love. He is perplexed about her decision. He reflects on their long-term relationship, and wonders if he has really ever known what Diane was thinking during all those years. This leads him to generalize. He wonders if anyone can ever know what is going on in the mind of another. He has thus arrived at the philosophical problem of Other Minds.

The Problem of Other Minds has multiple sources. Probably its deepest derives from Descartes who, as previously mentioned, takes the mind to be something private, hidden behind the barrier of the skin from others, and to which only its proprietor has direct access. For Cartesians, each human mind is thus a composite of *subjective* perceptions (representations, ideas, beliefs, feelings, dreams, etc.). Each of us is said to perceive the appearance and behavior of others which, of course, are “outer,” but to have at best only inferential or probable knowledge of another’s inner states, and that mostly based on what they say, how they look, or how they behave. The Other Minds problem is thus a subcase of the External World problem, though with its own special features, such as malingering, lying, pretending, and other modes of deception, and like the External World perplexity turns on the concepts of “direct” and “indirect,” and their adverbial equivalents. The notions of “knowing” and “certainty” are still other sources. They lend themselves to different questions,

such as “Can we ever know that others have minds?” or “Can we ever be *certain* about what goes on in the internal world of another?”, and so on. These queries demand different answers. However, if one accepts the idea that each of us is encapsulated within the domain of his or her own subjective sensations, two radically skeptical problems immediately arise. Both were first surfaced by Descartes. He called them the Demon and Dream Hypotheses. Here is a contemporary version of the Demon Hypothesis, due to Robert Nozick.

You think you are seeing these words, but could you not be . . . having your brain stimulated to give you the experience of seeing these marks on paper although no such thing is before you? More extremely, could you not be floating in a tank while super-psychologists stimulate your brain electrochemically to produce exactly the same experiences you have had in your lifetime thus far? If one of these things was happening, your experience would be exactly the same as it is now. So how can you know none of them is happening? Yet if you do not know these possibilities don't hold, how can you know you are reading this book now? If you do not know you haven't always been floating in the tank at the mercy of the psychologists, how can you know anything—what your name is, who your parents were, where you come from?<sup>5</sup>

Nozick's questions seem to presuppose that from the sheer possibility that a super-psychologist is manipulating each of us, there is a serious factual concern that we should worry about. This is a familiar logical error; it suggests that a supposed possibility can produce an *actual* threat. Something like this mode of reasoning is familiar in the philosophical literature; the ontological argument, though having its own peculiarities, is a famous instance of it. In a literary style that one can only admire, Daniele Moyal-Sharrock has pointed out the fallacy in Nozick's factitious worry. She says:

Our bounds of sense have traditionally been circumscribed by abstract laws of thought; laws of thought which—in our aspiration to *absolute* generality—we refuse to subject to specifically *human* parameters. This *absolute conception of the possible* is inconsistent with the ordinary, everyday conception of the possible. So that philosophers are expected to subdue their ordinary belief system and make an imaginative, nonintuitive leap to envisage the supposed possibility that there are no external objects in the human world or that only they exist. Although I am sitting here, thinking, typing, feeling hungry, the possibility

of my not *actually* existing, or of my merely dreaming my existence, or of external objects and other human beings not existing are things philosophy says I am obliged to consider because they are not self-contradictory. So what is this logic that cannot rule out ordinary nonsense, but that can so radically rule me out, exclude me, make nothing of me and the world I live in? Here, philosophy loses touch with life.<sup>6</sup>

In the following passage, evidently not worried about keeping in touch with life, Benson Mates formulates the skeptical dilemma in its most general form, more general than we find in the original Cartesian version of the Dream Hypothesis. Where Nozick speaks of “experiences,” Mates is closer to the tradition. He talks about “perceptions,” a comprehensive notion that includes, among other things, visual phenomena, beliefs, opinions, dreams, feelings, and sensations, such as pains.

Ultimately the only basis I can have for a claim to know that there exists something other than my own perceptions is the nature of those very perceptions. But they could be just as they are even if there did not exist anything else. Ergo, I have no basis for the knowledge-claim in question.<sup>7</sup>

As the title of his book—*Skeptical Essays*—indicates, Mates wishes to defend a form of radical skepticism, namely that there is no way of knowing, even with any degree of probability, whether or not anything external to one’s own perceptions exists, including whether there are other persons and if so whether they have minds. Because dreams are “perceptions” according to Mates, his formulation incorporates the Dream Hypothesis as a special case. I have discussed such extreme forms of skepticism elsewhere and have disavowed them.<sup>8</sup> Since I agree with Moyal-Sharrock’s diagnosis that logical possibility does not in general give rise to actual dilemmas, I will say nothing further about them here. Rather my focus is on views which either assert or presuppose that other human beings are not merely puppets, but do have feelings, thoughts, beliefs, and desires, very much like one’s own. The issue in this non-skeptical form is “Do we ever have access to another’s internal states?” Common sense holds, *with some exceptions*, that any judgment about the subjective sensations of another *may be* mistaken. The Cartesian model thus has a strong footing in common sense; both lead in diverse ways to the Other

Minds problem, as the case of Robert reveals, and that is the topic that will occupy us for the remainder of the chapter.

But a case of an impending divorce is hardly unique, so let us look at a few others. One meets an actor off stage. He or she smiles and is gracious. Is there any real feeling beneath the pleasant appearance? One's physician has a sympathetic bedside manner, but what are the thoughts that lie behind the facade—does he suppose you are a pest or a hypochondriac? You have friends. Can you ever be sure what they think of you? Politicians on the stump are often charismatic, promising to produce nirvana, if elected. In small groups and with their intimate associates, they are equally or perhaps even more charming. But can one ever know what real sentiments are covered by those friendly greetings? As W. V. O. Quine once wittily wrote: "There is many a slip betwixt objective cup and subjective lip."

One of the examples commonly used to support the traditional philosophical conception of the inner-outer model is that of the problem of the "inverted spectrum." Philosophers have talked about a possible situation in which your sensation of a particular patch of red might be seen by another as green; but both of you may use the word "red" to describe it. According to the tradition, there is no way of my finding out whether some other person is using the word "red" to denote the color I see. Again, this is an instance in which a possible scenario is taken to lead to an actual puzzle. As Moyal-Sharrock says: "Here, philosophy loses touch with life."

Examples of malingering are of special interest. For those of us who have served in the military, the sergeant's morning cry: "All those who are sick, lame, or lazy, fall out!" encapsulates a soldier's version of the Other Minds difficulty. Malingerers are persons who feign sickness or injury in order to avoid dangerous duty or hard work. Their intent is to deceive others, including physicians who may not be able to assess claims about lower back pains, severe headaches, gastric distress, or other ailments. Lying is another instance of deception, and can take many different forms, such as guile, hypocrisy, and fraud. Malingering and lying are thus practical manifestations that the Other Minds problem can take, and with which we are, unfortunately, all too familiar.

### III: AN IMPORTANT DISTINCTION

From the descriptions given above it is evident that the Other Minds problem can be divided into two segments or parts. The first is whether each of us can ever

have access to the inner states of another. The second adds the words “in the way that x does,” where x is another person. The second segment is seldom explicitly distinguished from the first in the extensive literature on this subject, although it is generally assumed or presupposed, rather than being articulated. It is obvious that direct and indirect play important roles in this second segment. They lead to such questions as “Can your physician ever know *in the way that you do* what you are experiencing when you complain to him about a pain in your knee?” Your access to your pain is direct (non-inferential). A physician has to *infer* from what you tell him and from CAT scans and other data what you are feeling. But can anyone, even a trained orthopedist, really know in the way that you do what you are experiencing? In such questions, one’s access to one’s feelings is presupposed to be different from the access another has to your feelings. This second segment raises two issues: first, whether knowledge consists in your being able to feel in the way that he or she does what another feels; and second, whether knowledge is identical with certainty. The case of the physician raises both issues.

The relationships between common sense and philosophical theses to the effect that we never know what is going on in the mind of another are both subtle and complicated. As I have said, common sense holds that there are exceptions to such concerns. Philosophers tend to overlook such exceptions, and in general put more emphasis on particular cases (say of sharp pains) and then generalize from such extreme cases. The effect is a kind of rigidity about the inner-outer model. This rigidity leads many thinkers to suppose that the inner-outer model has no exceptions; that it holds for all cases. In effect, this amounts to supposing that we can never know the mind of another, at least in the way we do our own; and, further, that we can always be certain about our own internal states in a way we cannot be with respect to those of others. The following quotation illustrates the attitude that philosophers typically have about the inner-outer model. It is taken from Paul Feyerabend’s autobiography. Feyerabend is speaking about Herbert Feigl, one of the original members of the Vienna Circle. He writes:

Feigl believes in incorrigible statements. He said—what seemed to be obvious anyway—that being in pain he knew directly and with certainty that he was in pain.<sup>9</sup>

Feigl says two things that the reader should carefully note. He claims to know that when he is in pain he knows directly that he is in pain, and that he

is certain on those occasions that he is. In adding the words, “He said—what seemed to be obvious anyway”—Feyerabend seems to be agreeing with Feigl. Together their comments are representative of a long philosophical tradition that assumes the inner-outer model holds for all cases—a tradition that also presupposes that the access to one’s internal states is direct and certain. Common sense is more nuanced; it would agree with these philosophers that there are cases where each person’s access to his or her feelings and mental states is both direct and certain, but it would also recognize that there are exceptions to this claim. It would even go further; it would hold that in certain circumstances we can be certain what another is feeling or thinking.

#### **IV: SOME EXCEPTIONS**

Let us now divide the inner-outer model to focus on its inner aspect and in particular on the claim that access to it is always non-inferential and hence certain. In this context, it is important to emphasize that our experiences form a spectrum, some of which are counter-examples to this claim. Common sense is more sensitive to such situations or cases than the philosophical tradition typically has been. Insofar as it can be articulated at all, common sense holds or would hold if made explicit, that human experience is more variegated and less uniform than the tradition acknowledges. Let us look at a spectrum of cases, all “inner” in support of common sense. It is doubtful, with respect to many of these, that one’s access can be correctly described as non-inferential and hence as certain. (Later I will turn to its outer aspect and will argue that the model is incorrect in its claim that our access to the feelings of another is never certain because it is always inferential.)

Consider the following case. Six months or so ago, I had root canal therapy. For a few days, thereafter, I was in a state that is best described as my not feeling quite normal; but even this description probably does not do justice to its lack of specificity. I certainly could not inform the dentist that I was having any sort of physical feeling, such as the throbbing sensation I had when I first went to see him, and I certainly could not, given the amorphous nature of the condition I was in, identify any particular source for it, such as the tooth that had been subjected to the endodontic procedure. The dentist ran several tests on the tooth; took an x-ray of it and adjacent teeth, and everything, he said, was “fine.” In my opinion, my not feeling quite normal was not a sensation;

rather, one might say, it was a condition that I was in; but it was so vague as to be indescribable to others, and so vague that I couldn't be certain whether I was feeling normal or otherwise. Was my access to this situation direct or not? It is hard to say one way or the other.

There are many such situations in daily life. One doesn't feel quite normal when one wakes up in the morning, but one can't articulate to another what the difference is between feeling normal and not feeling normal. The phrase "feeling normal" suggests that there is an entity that one is feeling. But from the use of that common phrase it would be a mistake to describe such a case as feeling a sensation, since that term suggests that there is something fairly specific that one has but can't quite pin down. Not feeling normal is a condition that many of us have been in. There is clearly a difference between such a condition and that of having a sharp pain. As Feigl's remark indicates he is probably thinking of cases where there is no doubt that one is feeling a determinate sensation; the pain may be hard to describe to a doctor or dentist; nevertheless one can't be mistaken about it. In such a case one's access is obviously non-inferential. But the condition I have described above is different. One is not really aware of anything specific enough to be called "a pain" and yet one somehow feels different from the way one ordinarily feels. Is one's access direct? Is it certain? It is dubious that a person in that situation could say either.

Some neurologists have told me that they occasionally receive phone calls from patients, stating they are having a headache. But by the time they reach the doctor's office, the pain has subsided. Now they say that their heads feel "strange." The headache, originally marked by a discernible sensation, has been replaced by something less specific. In many such cases, after being examined, the patients tell their physicians that they are now uncertain as to whether they are feeling anything whatever, strange or otherwise. Is their access in this case non-inferential? I am inclined to say the term doesn't apply in this context.

Dreams are often used as examples of experiences we can be certain about, and to which only the dreamer has direct access. The main argument to this effect concerns the content of dreams. It is held that only the dreamer can have access to the content of a dream and accordingly that he or she can be certain about that content. But this claim seems to depend on the thesis that dreams are mostly iconic, that is, that they contain images, pictures of things

and events, or other sorts of film-like representations. And it is to these icons that only the dreamer has access. As Descartes says:

It surely must be admitted that the things seen during slumber are, as it were, like painted images.<sup>10</sup>

*Webster's Third New International Dictionary* agrees with Descartes. It says, among other things, that a dream is “a series of thoughts, images or emotions occurring during sleep,” and in a later entry it states that “to have a dream is to have “ideas or images in the mind while asleep.”<sup>11</sup> Sigmund Freud would concur with Webster; he implies in the following passage that dreams contain visual symbols.

All elongated objects, such as sticks, tree-trunks and umbrellas (the opening of these last being comparable to an erection) may stand for the male organ. . . . Boxes, cases, chests, cupboards, and ovens represent the uterus. . . . Rooms in dreams are usually women. . . . Many landscapes in dreams, especially any containing bridges or wooded hills, may clearly be recognized as descriptions of the genitals.<sup>12</sup>

Some theorists have tried to explain why dreams are iconic. In *The Life of Dreams* (1861) Karl Albrecht Scherner presents such an account. “The dream fantasy lacks a conceptual language—what it wants to say it must paint pictorially, and since there are no concepts to exercise an attenuating influence, it makes full use of all the power and splendor of the pictorial form.” It is not clear what Scherner means by saying that dreams lack a “conceptual language,” and also that they lack concepts; but perhaps the simplest interpretation of his remark is that, for him, dreams are always iconic and never contain specimens of language. Linguistic units often express concepts so that he seems to tie the two together. His view is that lacking such linguistic features dreams necessarily “paint pictorially.” But investigators of dreams say in opposition to Scherner that not all dreams are iconic, and that they often contain or sometimes are even wholly composed of linguistic or other sorts of conceptual elements

There have been famous instances of iconic dreams in the history of science. One that occurred after Scherner's book appeared and that is found in



many elementary chemistry texts is usually called Kekule's Dream. According to the legend, one night in 1865, the noted chemist, F. A. Kekule, dreamed of the benzene molecule as a snake biting its tail in a whirling motion. From that iconic vision, the concept of the six-carbon benzene ring was born and the facts of organic chemistry, not understood before that time, fell into place. The tradition holds that the content of his dream was private and that it was only after Kekule reported it at a conference in 1890 did anyone know what he had dreamed.

Common sense holds that *sometimes*, but not always, we have direct access to dream episodes when we are asleep. The philosophical tradition goes beyond common sense; it contends that the content of dreams, such as Kekule's, consists of phenomena that only the dreamer can be directly aware of. This line of reasoning acknowledges, to be sure, that modern science has techniques for determining *when* someone is dreaming. Rapid eye movements (REM) are thought to be correlated with dreaming, and these eye movements can be observed by another individual. Later experiments, using probes, have suggested that parts of the brain may "light up" (so to speak) when one is asleep and is in a certain physiological and psychological state. But it is argued by most investigators that even the most sophisticated devices cannot inform an observer of the content of a particular dream episode. Whether this situation is only a temporary obstacle is anybody's guess. Some cognitive scientists now suggest that it is only a matter of time before the contents of dreams can be unraveled. But at least in 2009 that is still not possible, and many experts on dreams continue to assert that the content of a particular dream is something to which another's access is perforce indirect. The person having a dream can relate its contents to another by verbal or written reports. But the other's access is necessarily inferential and hence not certain.

A number of writers have denied that dreams are mental phenomena or that they are iconic. Here is a quotation expressing such sentiments:

I was inclined at one time to think of this result as amounting to a proof that dreaming is not a mental activity or a mental phenomenon or a conscious experience. But now I reject that inclination. For one thing the phrases "mental activity," "mental phenomenon," and "conscious experience," are so vague that I should not have known what I was asserting.

What I say instead is that if anyone holds that dreams are identical with, or composed of, thoughts, impressions, feelings, images, and so on . . . occurring in sleep, then his view is false.<sup>13</sup>

In addition to the above objections, can dreamers always be certain about the contents of their dreams? Some philosophers have denied that they can. The difficulty is two-fold: when one wakes up in the morning, it may be impossible to remember a dream. That this is a common situation is attested to by the fact that researchers frequently provide instructions that are designed to help persons remember their dreams. But in such cases, how can one ever verify that one's recollection of something that happened in sleep is correct or not?

To be sure, Malcolm does not deny that people dream, although he does deny (as the above quotation establishes) that dreams are iconic. His view is that the *criterion* for deciding whether anyone has had a dream is that, after having slept and while now awake, a person tells a story, normally to another person. The story is presumably about something he or she has experienced while asleep. But even the dreamer, let alone the other person, has no way of determining that such reports are accurate. Malcolm's conclusion is that there may be occasions when we may be mistaken about what happened while we were asleep, but there is no way of determining, either while awake or asleep, whether we have been. The correctness of a story about a case of dreaming is thus not a decidable matter. From his perspective, dreams thus belong to the class of indeterminate conditions, such as not feeling quite normal, that I have described above.

Such indeterminate conditions form one end of a spectrum and sharp pains lie at the other end. There is, in ordinary life, a vast range from the indeterminate conditions that lie at the beginning of a spectrum and those clear sensations that form its terminal phases. Feeling tired may be one of these indeterminate states. One's doctor performs all the usual tests, but everything, he says, is "well within normal limits." But nevertheless the individual who is tired is not feeling quite right. Within the concept of "feeling tired," there is also a large spectrum. Some cases may be due to a disease but others not. There is sometimes an explanation for the former but not for the latter. To say, therefore, that one can always have non-inferential certainty about the phenomena that constitute the "internal world" is not justified by the empirical

evidence. Common sense is well aware of this gamut of cases and draws distinctions among them. Philosophy, by contrast, looks at the world in a relatively simplistic fashion and sees the inner-outer model as consisting of a limited range of cases. Feigl's attitude is typical of the tradition. He does not focus on the differences in our experiences. Contra Feigl, we are thus often not certain that we are experiencing anything at all, let alone anything that approximates to a sensation.

#### **V: OUTERNESS AND CERTAINTY**

I turn now to the outer aspect of the model. It holds that we never have direct (non-inferential) access to the internal states of others. There are many exceptions to this thesis. I will mention three.

Having graduated five years ago from Quantico, Virginia, John Dale is now a captain in the United States Marine Corps. He is currently serving as the commander of a company (consisting of 150 troops) stationed in Mosul, a northern city near Nineveh in Iraq. Like many others, his unit has been subjected to intermittent but occasionally heavy fire from rocket-propelled grenades, mortars, and various types of guided missiles. These are the devices commonly used by insurgents against the allied forces in Iraq. Normally, they are inaccurate so the members of the Marine contingent become accustomed to the noises they make and hardly pay attention to where they land. But on Monday, an exception occurs; a grenade lands in company headquarters. These grenades have a bursting radius of seventeen feet (which means that anything within that radius will certainly be killed or wounded). Dale's adjutant, named Bob Grisham, has been filling out forms in the command post and is badly injured by the explosion. Dale has been overseeing the training of a group of sappers, away from company headquarters and escapes injury. He rushes to Grisham's aid and sees that his right leg has been blown off below the knee. Grisham is writhing on the floor, weeping and moaning. In this real-life situation is Dale in any doubt that Grisham is in excruciating pain? Is Dale's awareness that his adjutant is suffering pain inferential? It would be unreasonable to suppose so. This is an instance in which Dale knows with certainty what Grisham is feeling.

Here is a second case. Joanne is seven years old. She lives in Seattle, Washington, with her parents, James and Nancy. She is in the second grade and every morning around 8:30 she walks to a neighboring private school that is

three blocks away. She customarily returns around three in the afternoon. One day while her parents wait for her, she does not return at the usual time. After an hour or so her father drives to the school to see if she has been delayed. He is told by her teacher that she has left the class on time and should have arrived by now. He surveys the area carefully while returning home, and sees no sight of Joanne. He calls one of Joanne's friends and is told that she is not at their house. At five o'clock her parents call the police and explain that Joanne is missing. A police car, containing two uniformed officers, appears within an hour. They are apprised of the situation and they also search the area and find nothing. They call for assistance and together with their colleagues engage in a house-to-house search for Joanne. The search is unsuccessful; and no one has seen (or heard from) her. Several anxious days later Joanne's body is found in a wooded area not far from the school. According to the coroner she has been molested and then strangled and has been dead for three days. Upon hearing the news from the police, both parents burst into tears they cannot control. Is there any doubt about their feelings—that they are suffering a kind of agony that is impossible to conceal? In this context, a philosopher's insistence, that the two policemen have only an inferential awareness of how James and Nancy feel, seems frivolous. As Moyal-Sharrock says: "Here, philosophy loses touch with life."

Malcolm Wilson has been a star center with the Oakland Raiders of the National Football League for the past twelve years. It has been a bruising career. He has suffered all sorts of injuries, from broken ribs, and meniscus tears in both knees, to severe concussions. At the end of the current season, he decides to retire. He slowly paces his way into the Oakland dressing room and tells both his coach and the owner who happens to be present that he feels it is time to retire. They see that he can hardly walk. They realize that his knees will not allow him to play another season and so they don't attempt to change his mind. That he is in pain when he takes a step is not for them a matter of inference. They know this with absolute certainty.

## **VI: KNOWLEDGE AND FEELING**

I said earlier in this chapter that the Other Minds problem can be divided into two segments, the first being whether each of us can ever have direct access to the internal states of others. The second adds the words "in the way that x does," where x is another person. This segment raises all sorts of familiar is-

sues, such as “Can your physician ever know *in the way that you do* what you are experiencing when you inform him that you have a pain in your knee.” In addition, it raises two other, more general issues: (i) whether knowledge consists in another’s being able to feel what you do, and (ii) whether knowledge is identical with certainty (i.e., with access that is non-inferential). Both are complex. I shall consider them seriatim, beginning with the question of whether knowing what another is feeling consists in one’s sharing that feeling. If one has a pain, to make the question explicit, does the physician have to have your pain in order meaningfully and truly to say that he knows you are in pain? Two questions immediately arise: The first obviously concerns the ordinary use of the notion of knowing; but that in turn generates a deeper issue, “What is meant by *your* pain?” For its resolution, the latter requires a distinction between “numerical” and “qualitative identity.” I shall deal with this matter first.

Norman Malcolm provides a standard description of the distinction.

If it were said that after dinner Petersen and Hansen smoked the same cigar, the remark could be ambiguous. It could mean that the cigar Hansen smoked was not distinguishable in respect to size, color, or brand from the cigar Petersen smoked. We could express this, in ordinary speech, by saying that they smoked “the identical cigar.” We say for example that “Six ladies at the ball were wearing the identical dress.” What these remarks tend to mean is that two cigars were being smoked by Petersen and Hansen, and that neither cigar had any feature that distinguished it from the other; and among the dresses at the ball there were six that were indistinguishable—“You could not tell them apart.”

But it could mean something different by saying that the two men smoked the same (“the identical”) cigar; namely that altogether only one cigar was being smoked by them (they passed it back and forth like a peace pipe). The expression “numerical identity” is supposed to take care of this case. We are to say that the two men smoked “numerically the same” cigar. . . . If you told me that A and B are smoking the same cigar at the dinner table, and I ask “Numerically the same?”, you could understand me to be asking how many cigars altogether are being smoked by A and B.<sup>14</sup>

Though Malcolm in this passage does not use the term “qualitatively identical,” the case he mentions, of “Six ladies at the ball who were wearing the identical dress,” is usually described by saying the dresses were “qualitatively

identical,” though not “numerically identical.” The use of “qualitatively” entails that six dresses were being worn, garments that are visually indistinguishable from one another. Some philosophers, relying on the distinction between qualitative and numerical identity, have held that a physician may know that a patient is in pain in the qualitative sense, though not the numerical sense. An example of such a philosopher seems to be G. E. Moore, although one must hasten to add that in an essay in which Moore discusses a similar question, he is speaking about after-images and not about pains. In addition, the considerations he advances in support of what he says about after-images are so amorphous that they hardly constitute a well-formed argument; so some reconstruction of what he might have meant is necessary. But such a reconstruction of what he does say about after-images makes it plausible to attribute the same view about pains to him. After-images for Moore are subjective visual impressions of physical objects. They are mental entities—“seen” with one’s eyes closed after staring fixedly with open eyes at a physical object, such as a star cut out of cardboard. They resemble pains in that they are private, and are not to be met within space. Here, for example, is how Moore puts the matter:

It is, of course, quite conceivable that other people if they had been in the room with me at the time, and had carried out the same experiment which I carried out, would have seen grey after-images *very like* one of those which I saw; there is no absurdity in supposing even that they might have been exactly like one of those which I saw.<sup>15</sup>

It is clear that Moore is saying that after-images (and presumably the pains) of two different individuals can be said to be qualitatively identical, but whether he would have claimed that a physician can know that another is in pain only if he shares that pain in a qualitative sense is not decidable from the text. In “Proof of an External World,” Moore’s main point is to deny that any two persons can share numerically the identical after-image or pain. He uses words like “absurd” and “contradictory” to describe that suggestion. By “absurd” Moore means that it would be nonsensical or perhaps even logically contradictory for another to say that he or she is feeling numerically the same pain as Moore feels.<sup>16</sup> His reason for saying this is that when A and B are different persons, A’s pain is located in a portion of A’s body, and A’s body is located in a different place from B’s body. Since it is impossible for two physical bodies to be in the same place at the

same time, it is not possible for A and B to have numerically the same pain or to numerically share the same after-image.

The question that is raised by Moore's apparent suggestion that A and B might have the identical pain or visual image in the qualitative sense is whether a physician on hearing A's complaint can know that A is in pain only if the physician now has or has had such a pain. This thesis entails a number of counterintuitive consequences—for example, that a physician who is treating A for pneumonia can know that A's chest feels congested only if the physician has had that disease and has had similar feelings. It seems to me that this inference is surely misusing "know" in its ordinary employment. But what is or are the ordinary use or uses of "know"?

#### VII: A FIRST PASS AT "KNOW"

If one looks at a large dictionary, the number of entries under "know" and some of its cognates, such as "knowledge" or "knowing" seems endless. However, there is one in this gamut of definitions that is applicable to the case of a physician. It says: "Knowing consists in the condition of having a considerable degree of familiarity gained through experience of or contact with an individual or thing": ("having known the people of that country, he understands them fully"). A qualified physician satisfies this definition. He knows on the basis of his training as a resident and as an ordinary, sensitive human being when a patient is in pain. In such a case it is not requisite that he now has, or has previously had, the pain himself to make an informed judgment. He just needs to have dealt with many similar cases in order to be able to determine when a patient is in pain. The idea that a physician or another observer needs to have had a particular sensation, even in the qualitative sense, in order to have such knowledge is a fantasy. That is not what happens in real life and it is a misconstrual of everyday medical practice—and of everyday life—to suppose it to be so. I agree with Moore that a distinction between numerical and qualitative identity is needed when one speaks about the internal world of another, and I fully concur with his judgment that it is impossible for another person to have *numerically* the same pain that I have. Moore's officially published position is that it is *logically* impossible for two persons to have numerically the same after image (or the same pain), but the reasons he suggests are so vague as to be compatible with the idea that it might be *empirically*

impossible. But these issues, however one may ultimately decide them, are wholly consistent with the claim that an experienced physician can know that another is in pain without having had that sensation. Still, this particular result does not yet explain how “know” is used in general.

### VIII: “KNOW” IN GENERAL

The relationships between the use or uses of linguistic expressions and the human activities or objects they are used to talk about are complicated and cannot be compressed into a simple formula. We should in general distinguish words from what they are normally used to denote; so knowing and believing, for example, are in general to be discriminated from the words used to refer to them. Practices are one thing and words are another. But there are exceptions. It is thus true that in certain cases or in certain situations the uses of various linguistic expressions are themselves instances of behavior and are not merely expressions of some underlying phenomenon that is wholly independent of those uses. Speech acts are examples of such cases. In saying “I do” under felicitous circumstances, the words are (partial) ways of marrying another. But while keeping in mind the aforementioned distinction between language, objects, and practices, let us now talk about how “know” is used in general. It will be helpful to begin with a couple of cases of correct usage. “Correct” in this context means that the expression plays its normal role or roles in everyday verbal intercourse.

Imagine that Smythies is testifying at a trial. Does Smythies believe that *p* or does he know that *p*? Clearly the difference may be essential to the outcome of the case. Apart from such special situations, it is important for innumerable reasons to distinguish cases of belief from cases of knowledge. It is also important to distinguish the correct use of “know,” as a specimen of discourse, from the adducing of evidence in favor of a particular thesis. Our second example will be an instance of that sort.

Here is the first case: Suppose someone, looking through a window at my garden, on an occasion when the garden is covered by a heavy fog, asks me: “Do you believe that the thing we can barely see is a tree?” I respond: “I know it is. I planted it there myself, and when the weather is good I have seen it in that same spot.”

A second case: “Do you believe that the wood paneling in your house is resawn redwood or resawn cedar?” My response: “The two woods look a lot alike, but I know it is cedar because I talked to the architect about the kind of



wood he was going to use when it was first installed.” I myself don’t have the visual expertise to discriminate cedar from redwood, and I am certainly not adducing evidence to prove that the wood is cedar, but nonetheless I am using “know” correctly in this situation. I am using it correctly because an expert has provided the answer.

These scenarios reveal that it is generally correct to say “I know” instead of “I believe” when one’s ground or grounds are stronger than they would be if one were to use “believe.” Consider the following scenario by way of illustrating the contrast. I am asked: “Is Professor Church still in his office.” My answer: “I believe he is; I saw him there a little while ago, and he was reading a manuscript.” In this case, because I am not now in Professor Church’s office or now observing his present location, I must qualify what I say. However, the elimination of doubt does not entail that one is an eyewitness to a happening or event; sometimes it is sufficient to read a text or hear a knowledgeable speaker in order correctly to use “I know.”

One inference to draw from these cases is that there is no general formula for determining how strong such grounds or reasons must be. Each case must be judged on its merits (here we see the method of cases in full operation). Moreover, depending on the circumstances in which the question “Do you know such and such?” arises, the response may convey different messages; it may give an explanation, a justification, or indicate the route by which one comes to know, and so forth.

These scenarios also reveal a more general point about linguistic usage. They indicate that one is entitled to say “I know,” rather than “I believe” when one is in a *privileged* position. I was not in that position with respect to the question: “Is Professor Church still in his office?” But I was in the first case. There it was correct for me to say “I know that it is a tree.” I was in an advantageous position because I had planted the tree myself and because on other occasions I could see that the object occupying that place in the garden was the tree I had originally planted; and, of course, that statement is bolstered by the fact that trees don’t just vanish into thin air, or suddenly move their footings. Because I spoke to the architect who designed my house, I am in a special position to know that the wood that was used on my house was cedar and not redwood. Being privileged, I am entitled to say that “I know” in both cases. Note that in the second instance I am entitled to say “I know” because I consulted an expert.

What both cases have in common—and this explains a basic use of “know”—is that each of them excludes a measure of uncertainty. So if I couldn’t remember whether I planted the tree or not, I might in that circumstance hedge my bets by saying “I believe it is a tree we are seeing.” Note that in the case of Professor Church, I was, so to speak, in a state of belief in possessing some, though not all, or perhaps not the right sorts of, grounds for saying “I know.” My grounds for saying “I believe that Professor Church is still in his office,” are thus weaker than they would have been for saying “I know.” In a case of the latter sort, doubt is excluded primarily because one is in a special position for saying something stronger than “I believe that p.” But what counts as “being stronger” is not determinable in general or in advance of the assessment of a particular case.

In the light of these remarks, let us now return to Moore’s lecture in Cambridge. As I said earlier, Moore is not using “I know” informatively. No contrast is being drawn between belief and knowledge. Moore is not in a special position relative to his audience. They know, as well as he does, that the objects he is wiggling are his hands. The fact that he does not occupy a privileged position, different from his auditors, is one of the factors that makes his comment “I know that these are my hands” uninformative. The two cases I have mentioned above can be contrasted with his situation. They each inform an inquirer of something that the questioner does not know. They do so because in each case I was in a position to offer an informative answer. In the second example, it is also correct usage to say “I know” when I have no special expertise about the matter myself.

### **IX: KNOWLEDGE AND CERTAINTY**

We saw earlier that the philosophical tradition, by and large, accepts the inner-outer model that is central to the Other Minds problem. It also accepts a consequence of that model, namely that the relationship between directness (non-inferentiality) and certainty is indubitable. The strength of that relationship is open to evaluation. But whether it is axiomatic, logical, necessary, or analytical, or however one wishes to characterize it, I believe it is mistaken. Here are two counter-examples.

I have been a close friend of Edward Adams for many years. We attended the same grammar and high schools, and kept in frequent touch when we were in college, even though we had different majors. Our families have pic-

nicked together and have lived within a few houses of each other since Edward and I were children. For many years we were close friends, and I had both affection and admiration for him. Lately, I have become increasingly aware of his growing political conservatism and his increasing religiosity. When I think about him now, as I frequently do, I can't decide whether I still like or admire him. It is not that I have ambivalent feelings about him, sometimes liking him and sometimes not. But rather it is that I just don't know how I feel about him. I am certainly in direct touch with my feelings but they are too indecisive for me to be sure what they are. From the fact that one is directly aware of one's feelings, my conclusion is that it doesn't follow that one can be certain about those feelings.

Now a second case: I am at a wine tasting, probably the least knowledgeable among a group of cognoscenti, and we are sampling grand cru Bordeaux wines from the 1989 and 1990 vintages, trying to decide which is the better year. This is an issue about which the experts disagree. I am now savoring a bit of wine from a bottle of 1990 Cos D'Estournel, after having just tried the 1989. Cos is a second growth in the 1855 classification of clarets. In the wine literature, the 1990 has been rated 95 out of 100, a very high evaluation indeed. In various articles, the wine has been described as having a powerful flavor, mostly of cedar, with a slight tinge of violets. I am not tasting anything as powerful as the critics indicate, but I am certainly tasting something *directly*—according to the classical philosophical use of that term—but it is so amorphous that I am uncertain of what it is. It is not that I lack the vocabulary for describing what I am sensing, or that I don't know what cedar or violets taste like, or that I don't have the nose to detect subtle differences in the bouquets of wine; but the issue is rather whether I am detecting anything specific enough to be recognized as a distinct flavor. From this case of direct awareness it does not follow that I am certain about what I am experiencing.

## **X: SCIENCE AND THE METHOD OF CASES**

In concluding this chapter, I will suggest that the method of cases is an alternative to the traditional practices that philosophers have followed. In doing so, I don't wish to suggest that the method of cases is a kind of science. Quite the opposite. It differs from science in not offering theories about reality. Instead, it is descriptive, avoids generalities, and is limited in scope. Since the time of Galileo, scientific practice has been devoted to theorizing. Philosophy

as currently practiced in the West does much the same thing, possibly because it is modeled on science. Bertrand Russell set the tone for this way of proceeding. He argued that philosophy should be “scientific and grounded in logic.” The method of cases that we have been utilizing in this chapter rejects this advice. It differs from science and from traditional philosophy in that it illuminates the topics it deals with without proffering theories about them. The argument in this chapter is not to be interpreted as a proof that no philosophical theory is possible or that one might not turn out to be true. It is rather an argument based on probabilities, derived from both the past and recent history of our discipline. Since the earliest philosophical endeavors in the West, philosophy has developed theories that mostly fail to achieve conviction. Such disagreement is also widely endemic today. Consider the theory of definite descriptions that was invented by Frege at the end of the nineteenth century and was modified by Russell (and Whitehead) at the beginning of the twentieth. It was designed to explain how a linguistic expression could be meaningful without referring to anything. The two versions differed in major respects and were widely debated until the last decades of the twentieth century when they were replaced by the theory of direct reference, first advanced by Ruth Barcan Marcus and then later modified by Saul A. Kripke. It in turn achieved acceptance for a couple of decades but eventually splintered into diverse forms, and no acceptable theoretical substitute has been found.<sup>17</sup> All versions of the theory were essentially methodological recommendations, and none has endured. I submit that the notorious disputes that philosophy has exhibited from the pre-Socratics to the present stem from basic disagreements about method; and these disagreements generally result in theories (explanations) that are at odds with one another. It seems to me to be quite reasonable to assume that theorizing in philosophy is likely to result in disagreement or even in failure; and the method of cases can be looked at as an antidote to such theorizing. In the sciences there is less discord about method. That doesn’t mean that there aren’t disputes within science; but where there are, they arise from factors other than disputed methodologies. Accordingly, science exhibits more consensus in explaining features of the real world than do any of the humanistic fields, including philosophy. Let’s look at a couple of cases from two widely different sciences—biology and astronomy—that exhibit common procedures of investigation, and that typify the kinds of agreements scientists eventually reach. I have chosen these particular sciences since intuitively one

might think that their methodologies are polar opposites, biology being essentially experimental in character, and astronomy being mostly observational. Without going into excessive detail, I think the intuition is mistaken. There are experiments in astronomy—some of its most important results are based on the Doppler effect, an effect that gauges motion and that can be manipulated experimentally on Earth; and crucial observations in biology that lead to Mendel's Laws and to the discovery of DNA.

Let's begin with biology. Since time immemorial ordinary persons have noted that children often closely resemble their parents in size, weight, hair coloring, appearance, modes of speech, and personality, but despite all sorts of ideas about why this was so, there was no real understanding of the nature of hereditary transmission until the work of the Austrian biologist, Gregor Mendel (1822–1884). Mendel made an estimated 29,000 observations on pea plants (*pisum sativum*) and showed that one in four of the plants exhibited recessive alleles, two in four were hybrid, and one in four was purebred dominant. His findings have been called Mendel's Laws of Inheritance. With the development of gene theory and the discovery of DNA by Watson and Crick in 1953, in part based on x-ray crystallographic observations made two years earlier by Rosalind Franklin (photo 51 that clearly showed the double helix structure of DNA), the problem was solved. To that issue one can now write "QED."

Another celebrated case, from a different science, is that of the discovery of the planet Neptune. On July 3, 1841, John C. Adams, a twenty-two-year-old British astronomer wrote the following in his journal:

Formed a design in the beginning of this week of investigating, as soon as possible after taking my degree, the irregularities in the motion of Uranus . . . in order to find out whether they may be attributed to the action of an undiscovered planet beyond it.

Four years later, Adams predicted the existence of such a planet and where it could be found. Predictability is one of the key methodological elements in any science. It is based on a combination of observation and experimentation. The irregularities in motion were based on experiments conducted from Earth and led to the telescopic observation in 1846 of the planet Neptune by Johann Galle of the Berlin Observatory. Not only was Neptune's orbit

correctly predicted by Adams and the French astronomer, Urbain Leverrier, but it was subsequently learned from stellar occultation profiles that the planet was seventeen times as massive as the Earth. The example is a beautiful case of how a scientific conjecture can be investigated and then signed, sealed, and delivered.

Compare these scientific theories with the diversity of schools of thought we find in the humanities: in literature, art, history, music, and philosophy, for example. As I see it, the variety of opinions we find in the sciences stem from impediments in obtaining the facts. In the humanities the situation is entirely different. Here we find disagreement in what constitutes the proper method of pursuing a given activity, dissension that is further compounded by disagreements about the facts. Consider the numerous interpretations that have been given by literary critics of *The Iliad* and *The Odyssey* or the differing schools that have developed in history or philosophy, or to take a more specific example, the differing “solutions” we find in epistemology with respect to what is perhaps its most celebrated puzzle—“Our Knowledge of the External World.” This is a problem whose modern formulations can be traced to Descartes in the seventeenth century, although its antecedents are much older and exist in classical Greek philosophy. Yet despite attempts by Berkeley, Hume, Kant, Moore, and a myriad of subsequent philosophers to deal with the issue, no answer has ever been widely accepted. In this respect it resembles most of the famous problems about which philosophers have theorized: Change, God, The Possibility of Post-Mortem Survival, Free Will, Evil, and a host of others too lengthy to list. Here is a quotation that exemplifies the discouragement that philosophers have had, and still have, concerning this famous problem.

The External World problem, as would be expected, has many variant formulations and begets a number of derivative problems that are troublesome enough in their own right. It has of course been turned on all sides by its analyzers and would-be solvers and dissolvers; every joint in every form of it has been pronounced a non sequitur by somebody; every crucial term that appears in it has been declared stretched or in some other way abused or misused; and a criterion of meaning has been invented according to which the central question and its possible answers turn out to be nonsensical or at least “devoid of cognitive content.” Yet, despite all the attacks, death notices, and even obituaries, the problem is still with us.<sup>18</sup>

Now a few words, in summary, about the Method of Cases. It is a form of metaphysics, whose main tenets are that the world contains a plurality of different kinds of entities, and that some of these are mind-independent. Among the latter—the list is, of course, partial—are shadows, eclipses, rainbows, the Sun, the moon, mountains, lakes, storms, and the Earth itself. The Method of Cases is also a form of epistemology. As such, it holds that we can obtain knowledge and certainty about some of these objects and some of their features. It is positive about science, regarding its various subdisciplines as providing indispensable ways of coming to understand the nature of material reality; but there are forms of reality other than material reality; so it also maintains that philosophy should not be confused with science or adopt scientific modes of investigation as models to be followed. In this connection, it assumes that philosophy can provide equally valid insights about the everyday world, the sorts of findings obtained by J. L. Austin in distinguishing between an accident and a mistake and by Wittgenstein in his descriptions of language-games and family resemblances. It holds that theorizing is perfectly in order in the sciences, but not in philosophy. It does so because it believes that even a brief history of the discipline shows that most philosophical theories have been discarded because they simply don't work; and it holds that this is so because the world is too complex to be accurately described or understood by any simple or not-so-simple philosophical conception. To defend these claims at least to some degree, let us restrict our account to perception. The history of that subject is replete with discarded theories, most of whose liabilities stem from focusing on a limited number of objects: tomatoes, marbles, billiard balls, and inkwells. But the environment we inhabit is much more variegated than that limited set. It consists of a fantastic array of ingredients: fog, smoke, haze, reflections, textures, colors, and a myriad of shapes. This vast array presents us with a visual field containing protrusions, indentations, slopes, seams, crevasses, pits, inclines, stretches, curves, hedges, borders, and at least nine types of ice, which, taken as a group, exhibit innumerable shapes, textures, sizes, and colors. Light itself takes on a gamut of differing forms—from focused through ambient, from strong to weak, from intense to diffuse, and the way that light strikes objects, and the ways that they absorb or reflect light, affect the ways they look to human percipients. A person's stance, locus, and perceptual acuity affect how he or she sees the environment. It makes a

difference whether the person is scrutinizing it (for enemy movement), gazing at his or her vineyard (lovingly), carefully observing the passing traffic (to see when it is safe to cross); and it makes a huge difference whether a person is moving or standing still, scanning or not scanning, and whether the phenomena he or she is seeing are themselves moving or immobile, detached or fixed. Depending on an indefinitely large number of factors, what a person sees or looks at may be said to glimmer, twinkle, glow, shimmer, shake, wave in the wind, or pulsate. How a particular object will look to a percipient will depend on that person's purpose in using his or her eyes, what the object is made of, the light and atmospheric conditions at the time, and whether the object or the person is moving or whether both are. I am thus denying, under the rubric of the Method of Cases, that any philosophical theory of perception can give us an account of vision that accommodates such complexity. I am urging instead that *if* a problem arises requiring an explanation that involves some of these factors, that explanation will have to be piecemeal in character. It will have to examine problematic situations on a case-by-case basis and will have to be sensitive to the contexts in which they arise. I contend that no holistic theory of perception will satisfy this demand. The Method of Cases, I should finally add, is designed to apply to other domains of philosophical concern than perception. I am thus using perception and the sorts of theories it has traditionally generated as a sample of its power. In my judgment, it can be applied to any area of philosophy; but that is a matter that can itself only be tested on a case-by-case basis.

## NOTES

1. G.E. Moore, "Proof of an External World," in *Philosophical Papers* (New York: Macmillan, 1959), 127.
2. Moore, "Proof of an External World," 145.
3. Moore, "Proof of an External World," 147.
4. Norman Malcolm, "Defending Common Sense," *The Philosophical Review* (1949): 204–205.
5. Robert Nozick, "Knowledge and Scepticism" in *Perceptual Knowledge*, J. Dancy, ed. (Oxford: Oxford University Press, 1988), 21–42.



6. Daniele Moyal-Sharrock, *Understanding Wittgenstein's On Certainty* (Houndmills, Hampshire: Palgrave Macmillan, 2004), 177.
7. Benson Mates, *Skeptical Essays* (Chicago: University of Chicago Press, 1981), 99–100.
8. Benson Mates and R.H. Popkin, *Skeptical Essays for Everyone* (Amherst, N.Y.: Prometheus, 2002). See especially chapter 8.
9. Paul Feyerabend, *Killing Time* (Chicago and London: University of Chicago Press, 1995), 116–117.
10. Rene Descartes, *Meditations on First Philosophy*, third edition. Translated from the Latin by Donald A. Cress (Indianapolis: Hackett, 1993), 14–15.
11. *Webster's Third New International Dictionary* (Springfield, Mass.: Merriam, 1961), 688.
12. Sigmund Freud, *Interpretation of Dreams* (Washington, D.C.: Abraxus Books, 2007). Reprinted from 1899.
13. Norman Malcolm, *Dreaming* (London: Routledge and Kegan Paul, 1959), 52.
14. Norman Malcolm, *Thought and Knowledge* (Ithaca: Cornell University Press, 1977), 115–116.
15. Moore, "Proof of an External World," 132–133.
16. Moore, "Proof of an External World."
17. For an extensive discussion of these various theories see my *Twentieth-Century Analytic Philosophy* (New York: Columbia University Press, 2000), especially chapters 2 and 8.
18. Mates, *Skeptical Essays*, 99–100.



# What Philosophy Should Be

As I mentioned in the introduction, informal philosophy is not modeled on science and logic, but is an autonomous activity different from both, and from any putatively related disciplines, such as history, linguistics, psychology, or any of the other social sciences. Mainly, I justify this way of thinking by its capacity to resolve seemingly intractable difficulties, and some of its power has been exhibited in the preceding chapters. In those I concentrated on the External World problem and an almost equally famous puzzle, the Other Minds conundrum. The two problems belong to epistemology or perhaps to the philosophy of language, but in this chapter I will show that the informalist approach can illuminate any domain it explores, including some of the main issues that arise in ethics and the humanities.

## **I: FACT FINDING**

A contrast that is embedded in the literatures of science and philosophy is that science is a fact-finding activity and philosophy is not. According to this way of thinking, philosophy's distinctive task is to discuss value questions, such as what should be the best way of living for human beings, whereas science is wholly devoted to describing natural phenomena and their laws. But there are important exceptions to both sides of the opposition. Many of the scientists who were involved in the development of atomic weapons during the Second World War were among the first to oppose nuclear arms testing and to argue

against the nuclear arms race. These physicists thus took a moral stance about the employment of the very weapons they had devised.

The other side of the contrast is equally mistaken. Philosophy is, and historically has been, engaged in factual issues, but there are many different kinds of facts. Some facts are the same as those that science is interested in. These concern matter and its various properties, and have led, especially among the early Greeks, to explanations of how nature works. But it is important to emphasize that beyond the sorts of material facts that science mostly deals with, there are other sorts of facts that philosophy regards as falling within its proper province. Some of these are what I have elsewhere called “institutional facts.”<sup>1</sup>

## II. INSTITUTIONAL FACTS

Most philosophers accept the so-called “correspondence theory of truth.” This conception has its source in Aristotle’s famous formulation in the *Metaphysics*:<sup>2</sup> “To say of what is that it is not, or what is not that it is, is false, while to say of what is that it is, and of what it is not that it is not, is true, so that he who says of anything that it is, or that it is not, will say either what is true or what is false.”

A typical modern formulation of the correspondence theory states that *p* is true if it corresponds to the facts, and is false otherwise. Both sides of this relationship are complicated. What *p* refers to, for example, has been subject to differing interpretations. Some theorists have held that *p* denotes beliefs; others prefer to speak about statements, declarative sentences, or propositions. And what counts as a “fact” is equally complicated. Most philosophers have interpreted the question as referring to states of the natural world. Russell is typical of the tradition. He writes:

When I speak of a fact—I do not propose an exact definition, but an explanation so you will know what I am talking about—I mean the kind of thing that makes a proposition true or false. If I say “It is raining,” what I say is true in certain conditions of weather and is false in other conditions of weather. The condition of weather that makes my statement true (or false as the case may be) is what I should call a “fact.”<sup>3</sup>

So Russell speaks about a particular state of the weather as constituting a fact; and this is a scientific conception that innumerable philosophers have accepted, among them W. V. O. Quine, who has stated in various writings that

the only facts are scientific facts—a thesis that does not recognize the multitude of differing concepts that the term denotes, including those I have called “institutional facts.”

As A. P. Martinich and I have indicated in *Much Ado about Non-Existence*, institutional facts cover a wide range. They are facts about governments: courts, legislative bodies, and so forth, and the products of government, such as money. We have also argued that fictional facts belong to the same category. Institutional facts are to be contrasted with natural facts, such as the condition of the weather. There are no presidents, prime ministers, citizens, generals, sergeants, privates, rabbis, priests, ministers, quarterbacks, touchdowns, and end zones in the natural world. They exist because there are human institutions with various practices that create them.

A large number of institutional facts are created by explicit performative utterances, as John R. Searle has pointed out in the *Construction of Social Reality*.<sup>4</sup> Searle’s favorite example is the creation of money. He indicates that governments can take pieces of specially sized and shaped paper, arrange to have designs and symbols printed on them, and declare them to be worth such and such an amount. Accordingly, these objects can be traded for food, clothing, and entertainment. This is possible only if one has an institution which is accepted by human beings as having this sort of authority. Institutional facts are thus the products of human institutions and are not found in nature.

I disagree with Searle’s account in a certain respect. He argues that institutional facts require what he calls “brute facts.” Money in the form of bills thus requires the existence of paper upon which designs can be imprinted. That George Washington was the president of the United States, an institutional fact, exists on top of a brute fact, namely that George Washington was a man. My disagreement with Searle does not question the existence of institutional facts, but has more to do with his account that every institutional fact requires a brute fact. Let us consider money for instance. Originally, money needed to be realized in some kind of object, a hunk of shaped metal or on paper. But in sophisticated economies there is no natural object which underlies money. The amount of debt a nation or a corporation owes may be stored in a computer by means of electric or magnetic processes. The financial obligation one incurs by having a mortgage on his or her home is not customarily realized in a brute fact. It is thus not generally true that institutional facts and objects need physical substrata.

I agree with Searle that institutional facts are capable of being true or false. There would be no such entities as a quarterback or a team or a touchdown unless there were institutions, such as the National Football League, that created such entities. It is such institutional facts that make statements true or false. Here is an example. *L. Tomlinson, a back for the San Diego Chargers*, scored a touchdown in a football game, played on December 9, 2007, against the *Tennessee Titans*. If Tomlinson scored a touchdown in that game, the statement is true; if he didn't the statement is false. Truth and falsity thus apply to institutional facts, which include dates, just as they do to natural facts, such as the condition of the weather on a particular occasion.

There are many other sorts of facts besides natural (scientific) facts. Among these are fictional facts, and historical facts. These are facts that make fictional and historical works true. Some of the most interesting of such facts are what Martinich and I have called "legal facts." They are facts that make legal statements true, and are a subcase of institutional facts. If there were no courts or legal institutions, such facts would not exist. But in every sophisticated society there are such institutions; and some of the facts they produce by means of their authority are surprising and counterintuitive. There is a logical difference between fictional and legal facts. The former invariably retain their ordinary lexical meanings but the latter often do not. With respect to fictional facts, for example, the statement, "Sherlock Holmes was a detective who lived in the late nineteenth century at 221B Baker Street in London," means exactly what it says, and is made true by some of the Conan Doyle texts. But there is often a change in lexical meaning with respect to some legal facts—for example that persons in good health are legally declared dead, and that daughters are legally sons. What both fictional facts and legal facts have in common is that they diverge from natural or scientific facts. For instance, the statement that a detective, Sherlock Holmes, lived at 221 B Baker Street in London in the late nineteenth century would not have been verified by any census (scientific) count taken at that time. If such a count had been initiated no such detective, as Conan Doyle describes, would have been found living at that address.

It is also true that legal facts are sometimes at odds with natural or scientific facts. Judges are not dissimilar from referees at sporting events. A TV-replay of a presumed touchdown might show convincingly that a player did not cross the goal line; and might be challenged by the opposing coach. In spite of such a challenge and even what the televised replay shows, if the

referee declares the play a touchdown his decision stands. It means that in the official NFL records, a touchdown was scored and may well determine the outcome of the contest. The natural fact does not normally override an official's ruling. In similar fashion, a judge might well reach a verdict that contravenes DNA or hemoglobin evidence. Despite the scientific findings his decision prevails. Nevertheless, one should not push the comparison too far. In general, a referee or umpire's decision on the field of play is not subject to further appeal. But legal decisions may well be. In California, for example, a case tried in a superior court may be subject to an appeal in one of the six courts of appeal in that state. From there further appellate action is possible, going from (say) the Sixth District Court of Appeal to the Supreme Court of California, and in certain cases could well end up in the Supreme Court of the United States. Here now are a quartet of examples in which legal facts not only diverge from natural facts, but are counterintuitive and strange for that reason. This does not mean that legal facts always run counter to natural facts. So a jury's verdict that a certain person committed a felony may well be supported by natural facts.

### III. SOME ODD LEGAL FACTS

I begin by listing four legal facts that were created by judges.

1. A felon (in good health) is dead.
2. A female is a male. A variation of this judgment is that a daughter is a son.
3. Adult human beings are not persons.
4. Aliens who are physically in the United States are considered to be detained at the border.<sup>5</sup>

Why do legal facts, especially those that are so peculiar, exist? One reason is that laws are almost always general, and when circumstances are unusual, the general law if applied insensitively may result in an injustice. Let us look at the first two cases as illustrations of this point. Here is the first case: A son murdered his father in order to inherit the father's fortune. At the time, there was no law prohibiting a person's benefiting financially from a crime. The judge consequently declared the felon dead, and the inheritance went to the felon's child. The case turned on the fact that the patricide was an only child. The judge decided that a member of the family should receive the bequest, rather

than the revenue going to an anonymous charity, but that it should not be the person who committed the murder. Justice was thus done in the eyes of the court. In a case similar to the one about the patricide, a felon who had been declared (legally) dead later murdered another person. His defense was predicated on the supposition that he could not have committed the murder because he was dead. The judge, reversing the previous legal decision, did not accept the defense. The felon was convicted and was later executed.

The second case is equally odd. A daughter was declared to be a son in order to prevent an injustice. A daughter, who had no siblings and was in great monetary need, would not have inherited her father's estate because only a son could inherit at that time. The judge, realizing that she was poor and a person of moral rectitude, declared her to be a son, and she did inherit a substantial sum. In these and other cases, the laws have been changed to restrict the judge's authority. In other words, the legal facts were time-dependent, they applied to special circumstances, and were designed to prevent a miscarriage of justice in those situations. One way that legal facts hold only for particular situations can be seen in the latter case. The woman who inherited her father's fortune would not have been permitted to marry a female. She was a son only for the special purpose of deciding who would inherit her father's estate. The law thus allowed such a decision for situations that were severely circumscribed. The fact that the laws in both cases have subsequently been changed indicates that the kinds of legal decisions that were made applied to relatively local circumstances.

The third case we mentioned above defies rational explanation. The situation that resulted in a judicial decision that adult, living human beings were not persons, is as follows. On January 11, 2008, the U.S. Court of Appeals for the District of Columbia Circuit ruled 3 to 0 that a lawsuit filed by four British men who contended that they were systematically tortured while held as prisoners in Guantanamo Bay could be dismissed on the ground that "because the plaintiffs are aliens and were located outside sovereign United States territory they do not fall within the definition of 'person.'" The four British men claimed that their religious rights were infringed by their imprisonment and torture and cited the Geneva Convention about the rights of prisoners held by a foreign government. In response, the court ruled that "the government shall not substantially burden a person's exercise of religion," but also held that the four ex-prisoners were not persons so that the Geneva Convention did not ap-



ply to them. The four who sued are Shafiq Rasul, Asif Iqbal, Ruhel Ahmed, and Jamal Al-Harith who were sent back to Great Britain in 2004. As we shall see later, the question of what counts as a person, especially in cases of abortion, is complicated and falls well within the scope of philosophical concern.

The fourth case is sometimes called an “entry fiction.” The law [*Shaughnessy v. United States*, ex. rel. Mezei (1953) 345, 206, 215] provides that although aliens seeking admission into the United States may physically be allowed within its borders pending a determination of admissibility, such aliens are legally considered to be detained at the border and hence as never having effected entry into the USA [*Napoles v. INS D. Conn.*, 2003), F. Supp. 2d, 272–275].

#### IV: TWO QUESTIONS

We now encounter two questions that should be distinguished. The first is “What is philosophy?” and the second (which is the ultimate subject of this chapter) is “What should philosophy be?” The questions are rarely distinguished because they merge into one another in complex ways, especially historically, but let us try to keep them separated. I begin with: “What Is Philosophy?” The issue in part turns on what philosophers have done historically, as we shall now briefly see, but it also involves the meaning of the word “philosophy” as that is presently used. It is interesting to note, in light of the fact-value distinction, that many of the earliest philosophers did not distinguish sharply between scientific and moral questions. Some of their problems and concerns were more or less the same as those of modern scientists. Moreover, some of the ways they developed for dealing with such problems were not so different from what we find today. But to elaborate on this point, even if only briefly, will require a short excursus into the history of the discipline.

#### V: A BRIEF HISTORY

Our written records show that Western philosophy begins in ancient Greece, and that the earliest philosopher about whom we have any reliable information is Thales, who was born in Miletus, located on the Aegean coast of Asia Minor in what is now Turkey. His dates are usually given as (625–546, B.C.), but most textbooks say that these are only approximate. Much of what is known about him is admirably summarized in *A New History of Philosophy*,

Vol. 1, by W. I. Matson (Fort Worth, Tex.: Harcourt, second ed., 2000), chapter 2. I will quote Matson:

Thales was to later Greeks the most famous Milesian for much the same reasons as Benjamin Franklin is to us the most famous Philadelphian. He was renowned as statesman, engineer, geometer, and astronomer. His name was a synonym for ingenuity and appeared in all the otherwise differing lists of “Seven Sages.” When King Croesus of Lydia menaced the independence of the twelve cities of Ionia, Thales gave them the advice—which they did not take—to establish a federal government with common citizenship. Many stories have come down that illustrate his wisdom, both theoretical and practical.

We know with fair assurance the gist of four things he said: water is the source from which all things come; the earth is a disc floating on water; the stone of Magnesia is alive because it can move iron; and all things are full of gods. But he wrote no book.

The first mention of Thales in surviving literature is by the historian Herodotus, who credited him with having predicted “the very year” of the solar eclipse, now known to have occurred in Thales’s part of the world in 585 B.C., which so terrified two battling armies that they stopped fighting.

We can add a morsel to Matson’s account. Let us concentrate on the first of the four principles that Thales is believed to have held. This is the idea that “water is the source from which all things come.” In his “*Metaphysics*,” Aristotle (384–322 B.C.) wrote an account of his philosophical predecessors, beginning with Thales. He says that Thales believed that the fundamental stuff of reality was water. As Aristotle puts it, Thales saw that the “nourishment of all things is moist, and that warmth itself is generated from moisture, and persists in it; and also that the seeds of all things are of a moist nature,” and concluded that “water is the first principle of nature.”<sup>6</sup> As an inhabitant of a coastal city in Asia Minor, Thales was aware of the enormous stretch of water composing the Mediterranean Sea. It is also believed that he visited Egypt and saw the vast outpouring of river water from the south that flows into the Nile basin. In saying that the nourishment of all things is moist, he attempted to demonstrate that a simple theory will reveal a basic connection between seemingly diverse natural processes and events—plants, soil, ice, and animals. The theory was designed to uncover the common characteristic (later to be called “the essence”) that all things in the natural world share.<sup>7</sup> His argument

was that water was this characteristic. Although Thales's account was primitive by modern standards, it was not so different from what Newton was trying to do. The Law of Gravitation explains why apples fall to the ground, why there are tides, and why the moon doesn't wander away from the Earth or fall into it.

Aristotle describes his predecessors as scientists who investigated nature "in order to know and not for any utilitarian end." The comment is certainly true of Thales and his immediate successors. They engaged in speculations that were non-utilitarian and were designed to uncover the secrets of nature. In pursuing such inquiries they were attempting to show that a limited number of principles explain a wide range of phenomena. Some of their questions are still of contemporary scientific interest and others belong to moral philosophy. Among the scientific questions they considered were: "Is there some primal stuff from which all diversity emerges?"; "Is there something permanent that underlies all change, and if so, what is it?"; "What is the difference between mind and matter?"; "Where did the universe come from?"; and "Is the Sun a rock?" Some of these questions are reminiscent of issues that physicists still pose—"Is there a particle that is fundamental, simple, and from which all other particles derive?"

But they also asked questions that are not *prima facie* scientific: "Is there any meaning or purpose in life?"; "What is the nature of the good life for man?"; "What ought to be the role of pleasure in everyday existence?" and so forth.

In general, their ways of dealing with both sorts of such questions emphasized reason rather than experiment. They assumed that rational inquiry would by itself answer all these questions. It was only two thousand years later that Galileo began a new tradition in which it gradually became apparent that reason would have to be supplemented by experiment in order to obtain an accurate picture of the workings of nature.

As a result of this understanding, inquiries that had originally been treated as part of philosophy gradually separated themselves from the parent discipline. Even as late as the seventeenth century, the physicist Isaac Newton described himself as a "natural philosopher." But as a consequence of his investigations, physics soon became an autonomous discipline. In this respect, it was rapidly followed by chemistry and biology, and then in the twentieth century by psychology, anthropology, sociology, political science, and linguistics.

Nonetheless, philosophy managed to survive, but not without feeling the effects of these defections. On the one hand, it recognized that the kinds of experimental/theoretical inquiries that science conducted were of a different order from anything philosophers could or should do. There was thus a growing and explicit recognition that scientific exploration differed in kind from philosophical inquiry, and that the emphasis on experiment was the differentiating factor. But on the other hand, this acknowledgment did not mean that these different approaches lacked certain commonalities. Both were committed to exploring, understanding, and thus ultimately to explaining the animate and inanimate aspects of the world, and both were committed to rigor in argumentation, to the same canons of evidence and proof, and to the use of reason and logic in arriving at knowledge and truth. The philosophical tradition thus came to envision its activities as running parallel to science. We might say that it saw itself as a kind of non-experimental science. In arguing that water was the basic stuff of reality, Thales was presupposing this parallelism and the tradition followed him in accepting its principles as central to philosophical inquiry. This is certainly true of some of the outstanding philosophers of the past century—Frege, Russell, Carnap, Popper, and Quine. Russell articulated the consensual point of view by saying that philosophy should be “scientific and grounded in mathematical logic.” This attitude has dominated Anglo-American philosophy ever since. Informal Philosophy is an alternative to this position.

#### **VI: THE MEANING OF “PHILOSOPHY”**

In effect, the question demands a search for a definition of “philosophy,” so I shall begin by looking in a place where the definitions of words are commonly found: a dictionary.<sup>8</sup> This will turn out to be a helpful procedure. In the end it may not suffice to produce a full characterization of “philosophy,” but it can carry one a considerable distance toward achieving a satisfactory answer. Later on, it will require supplementation through the examination of a specific philosophical problem. On the basis of this exploration, it may be possible to discover additional features that belong only to philosophy, and in this way to flesh out the picture which the dictionary only sketches.

The dictionary lists seven entries for the word “philosophy,” and in addition gives its etymology or origin. The entries are:

1. The study or science of the truths or principles underlying all knowledge, and being (or reality).
2. Any one of the three branches (natural philosophy, moral philosophy, and metaphysical philosophy) accepted as composing this science.
3. A system of philosophical doctrine: *the philosophy of Spinoza*.
4. Metaphysical science: metaphysics.
5. The study or science of the principles of a particular branch or subject of knowledge: *the philosophy of history*.
6. A system of principles for guidance in practical affairs.
7. Philosophical spirit or attitude; wise composure throughout the vicissitudes of life.

If one studies these entries carefully, it can be seen that they fall naturally into two groups: entries one through six speak about philosophy as a *science* or as a *system of principles*. The seventh entry, by contrast, refers to philosophy as embodying an *attitude* toward life, a “wise composure throughout the vicissitudes of life.” The difference between the two categories is significant and worthy of further exploration. But in doing so, one should avoid drawing the conclusion that most thinkers regard or have regarded what they are doing, or have done, as a kind of science: Earlier I quoted Russell who held such a view, and there are many others who have pressed home the same point. C. D. Broad, for example, wrote: “There is both need and room for a science which shall try to analyze and define the concepts which are used in daily life and in the specific sciences.”<sup>9</sup> But others have denied that it is a science at all. Wittgenstein was a notable representative of this point of view. In the *Tractatus*, he said: “Philosophy is not one of the natural sciences. (The word ‘philosophy’ must mean something which stands above or below, but not beside the natural sciences.)”<sup>10</sup> In the next entry, he added; “Philosophy is not a theory but an activity.” In *Philosophical Investigations*, part I (probably completed around 1936), he stated: “It was true to say that our considerations could not be scientific ones. It was not of any possible interest to us to find out empirically ‘that contrary to our preconceived ideas, it is possible to think such-and-such,’ whatever that may mean” (109). This remained his attitude throughout his career, including his writings after Part I of *PI* that Daniele Moyal-Sharrock has called the *Third Wittgenstein*. In *On Certainty*, composed between 1949 and 1951, he wrote, in what was to be his last notebook: “Someone who doubted whether

the earth had existed for 100 years might have a scientific, or on the other hand a philosophical, doubt” (259). The contrast between philosophy and science could not have been drawn more sharply. It would thus be dangerous to put too much stress on the scientific aspect of these definitions.

The seventh dictionary entry, in contrast, seems to portray philosophy not so much as an intellectual endeavor but as a way of responding to the vagaries of life. The distinction being drawn in this entry is between inquiries directed toward the acquisition of knowledge and those directed toward the guidance of life. What the dictionary is telling us is that to know is one thing, to act is another.

We may see this more clearly if we move on from these entries, and look into the etymology of the word “philosophy.” The dictionary states that this word comes from two Greek words, “philos” and “sophos,” which mean “love” and “wisdom” respectively. On this etymological account, “philosophy” means the same as “love of wisdom.” Now there are dangers in courting what J. L. Austin once called “that goddess fair, divinest Etymology,” for though this is what the Greek words originally meant, none of the entries in the dictionary specifies that this is what they now mean. Nevertheless, I will pursue the etymological clues to see where they lead. We shall indeed find them helpful. The entries for “love” and “wisdom” are:

*love*. n. 1. a strong or passionate affection for a person of the opposite sex. 2. sexual passion or desire or its gratification. 3. an object of love or affection: a sweetheart. 4. a personification of sexual affection, as Eros or Cupid. 5. a feeling of warm personal attachment or deep affection, as for a friend (or between friends), parent, child, etc. 6. a strong predilection or liking for anything: *love of books*. 7. the benevolent affection of God for His creatures, or the reverent affection due from them to God. 8. Tennis, etc., nothing; no score.

*wisdom*. n. 1. the quality or state of being wise; knowledge of what is true or right coupled with just judgment as to action; sagacity, prudence or common sense. 2. scholarly knowledge, or learning: *the wisdom of the schools*. 3. wise sayings or teachings. 4. a wise act or saying.

Most of these entries can be excluded as being helpful in answering the question “What is philosophy?” But there are in this complex of definitions some that seem more plausible. If one interprets “love” to mean the same as “a strong predilection or liking for anything,” and “wisdom” to mean “knowledge of what is true or right, coupled with just judgment as to ac-

tion,” one gets the following composite definition: “Philosophy is the strong liking for knowledge of what is true or right, coupled with just judgment as to action; sagacity, prudence, or common sense.” This definition has the immediate advantage of bypassing many of the disputed cases, such as whether philosophy is a science or not (it replaces “the science of” by “a strong liking or predilection for”) or even whether philosophy is a rational activity or not. It thus enables us to include within the scope of philosophy, such “antirational” (or perhaps “non-rational”) outlooks as skepticism, fideism, existentialism, and even types of quietism. Proponents of such “doctrines” might deny that they are putting forth any scientific or rational account of the natural world, but all such views either come within the scope of the term “knowledge of what is true or right” or the term “coupled with just judgment as to action.” In the philosophy of Sextus Empiricus, for instance, doubts that knowledge and certainty can be acquired are offset by an account of how men should live, namely, that they should cultivate an attitude of *epoche* or suspension of judgment with respect to the vicissitudes of daily life. This view is thus captured by that part of the definition that speaks about the cultivation of just judgment as to action. The definition also picks up such entries as the seventh, since an attitude of “wise composure” toward life’s difficulties involves not just the possession of a psychological disposition to act, but the additional element that this is a reasonable or sagacious kind of response to such vicissitudes. It has the further advantage of supporting my advocacy of informal philosophy which emphasizes good judgment and common sense about practical matters. Since the above composite definition has much to say for it, I shall adopt it as a working definition. But it still needs fleshing out; so let us look at a specific, important, puzzle to see what additional features can be inferred about philosophy from such a problem.

## VII: ABORTION

This is a good example of a philosophical problem, raising fundamental questions for humanists, ethicists, priests, rabbis, pastors, women, men, teenagers of both genders, parents, legislators, legal theorists, sociologists, and physicians. Beyond the legal, scientific, and medical issues, there is a network of questions that philosophers, especially ethicists, have addressed and that bear upon the problem. “Is the unborn entity a human being?” “Is it a person?” “Is

society justified in inflicting death on the innocent if this can demonstrably be shown to benefit society in general?” “Do the unborn have rights, and if so, what are they?” “When the life of a mother and the life of a fetus are both endangered, but only one can be saved, which should it be?” “Is abortion murder?”

All these questions arise for both opponents and proponents of abortion. Like many philosophical issues that quickly become complicated, the problem can be stated in a simple way: “Is abortion ever justified?” This simple statement initiates a host of complexities, such as what do “expulsion” and “viability” mean? “Expulsion,” for instance, covers a number of different activities; it may mean a specific medical procedure, such as a dilation and curettage (D and C), performed in a hospital for legitimate medical reasons, such as the treatment for endometriosis. Expulsion may refer to a back-alley procedure, or the taking of certain drugs, for expelling a prenatal entity. “Viability” refers to the ability of the fetus to survive outside the womb, a period that physicians say is roughly from twenty-four weeks to parturition. Viability also has a number of possible applications, including whether what is being expelled is a self-subsistent child, a human being, or a person. Let us examine the competing alternatives. What may be called the *Right to Life Position* (hereafter abbreviated as RL) answers the question of whether abortion is justified in the negative and offers the following argument in support of its position. (I am not sure that the argument in this form is actually held by anyone, let alone by a majority of those who oppose abortion, but it does contain most of the provisions that are held by many of its proponents.)

Here, then, is what a reconstruction of the RL (sometimes called the “pro-life”) position would look like. First, it would claim that from the moment of conception to parturition, the unborn entity is a human being. Second, it would hold that all human beings are persons. Third, it would contend that the unborn are innocent of any crime. A typical expression of this principle follows: “If we say that a woman can decide that an innocent baby should die, what is to prevent a person from deciding that an innocent parent should die, a handicapped person, or an elder? Nobody has the right to ‘decide’ that an innocent person should die.” Fourth, on the basis of the third premise, it would argue, that the taking of any prenatal life is murder. “Murder is the intentional killing of an innocent person. Intentional killing and killing an innocent person clearly apply to abortion. The child is absolutely innocent. He



is not an attacker. He is in his natural place. Abortion is the deliberate and intentional killing of this innocent person.”<sup>11</sup> Fifth, it would maintain that it is necessary to find a consistent set of moral principles (a reasonable, defensible philosophy) that would justify the destruction of the unborn; and if so, such principles would justify the abortion of a prenatal entity only if they would also justify the killing of an innocent postnatal child. Sixth, it would hold that no considerations can be adduced that would justify the latter course of action; and, accordingly, it concludes, no principles can be found that would justify the former.

The argument has a number of variations, but something like it is held by some religious persons, and by many persons without religious affiliation who are opposed to abortion on secular moral grounds. The basic thrust of the argument in this reconstruction is to maintain that there is continuity from the moment of conception to the end of life and that there is no difference in principle between the killing of the unborn and the killing of a postnatal child (or adult). The argument thus challenges those who favor abortion to find some relevant differences between the status of prenatal and postnatal beings that would justify the killing of the former but not of the latter, concluding that no such difference can be discovered. The argument presupposes that human life is intrinsically valuable, that it represents a good in itself, and is not merely a means to some higher good. Echoes of this principle are indeed to be found in the writings of many philosophers—for example in Hobbes, who states that the right to the preservation of one’s own life is absolutely basic and is antecedent to any rights derived from the rules or provisions of society.<sup>12</sup>

I wish to stress here that this idealized statement of RL is a reasoned position that represents a consistent philosophy. Each of the elements in the argument depends on a compelling philosophical principle. Any challenge to it must thus rest upon equally persuasive maxims. Before examining such a counterposition, I wish to describe some natural or scientific facts that both sides accept, and that will provide a neutral background for subsequent discussion.

After the female germ cell, known as the “ovum” is fertilized by the male germ cell, called the “spermatozoon,” it possesses a full complement of twenty-three pairs of chromosomes, one in each pair from each parent. At that stage, the ovum is called a “single-cell zygote.” Within twenty-four hours, the single-cell zygote begins to divide, reaching sixteen cells by the third day, and continuing to grow as it moves through the fallopian tube into the uterus.

During the first week, it gradually implants itself in the uterine wall, and at this stage it is known as a “conceptus.” By the end of the second week, it is usually firmly embedded in the wall of the uterus, and from this point through most of the first trimester it is termed an “embryo.” Eventually the embryo acquires a face and incipient limbs, and shortly thereafter brain waves can be detected. From this period until it reaches term (or parturition) the entity is named a “fetus.”

I mention these scientific facts because they allow us to distinguish between forms of the pro-choice or pro-abortion position (PA). There are many such variations, usually distinguished by the particular premise in RL that is being contested. A common version of PA concentrates upon the first premise of RL, namely that the unborn is from the outset a human being. According to this view, the zygote is not a human being, though it has the potentiality of becoming one. The contention is that the zygote is simply a mass of living tissue, analogous to a cyst or benign tumor, having no human features or characteristics. The zygote can thus justifiably be excised and aborting it can be thought of as a surgical procedure that eliminates an unwanted growth. There are two assumptions associated with this claim: first, that the pregnancy is unwanted by the prospective mother and possibly by the father; and secondly, that the elimination of the zygote is not a case of murder, “murder” being defined as the killing of another human being with malice or evil intent. The point of the latter assumption is to distinguish killing from murder. Killing someone may be a justifiable action, depending on the circumstances, but murder in a civil society never is, although those who engage in political assassination would probably not agree that what they are doing is murder.

Variants of this view sometimes argue that the aborting of the conceptus, or even the fetus, is justified because the unborn entity is not yet a person—a person being something with a mind, having a will, feelings, desires, and the capacity to make decisions. Both of these pro-abortion theses press home an analogy: it is claimed that the zygote, conceptus, or fetus, stands to a full-fledged human being or person in much the same way as an acorn stands to an oak. To prevent an acorn from becoming an oak is not identical with killing or cutting down a tree, and that it amounts to a category mistake to think that the two cases are identical. There is also some disagreement between proponents of PA, over whether the zygote or even the fetus qualifies as a human being or alternatively as a person. A writer who seems not to have differentiated

between the two options has stated: “At this place, however, it should be remembered that we have only been pretending throughout that the fetus is a human being from the moment of conception. A very early abortion is surely not the killing of a person.”

The foregoing line of argument about personhood was buttressed by a legal decision. In *Roe v. Wade* (1973), the United States Supreme Court held that some unborn entities are not “full legal persons,” and that a woman has the right to an abortion anywhere in the USA in the first trimester of pregnancy. In invoking the notion of a trimester, the court introduced a legal, non-scientific fact—the concept of a “trimester.” The scientific fact is that gestation normally takes nine months. The court imposed a non-scientific fact, the trimester, in rendering its decision. It divided the gestation period into three parts, each having an important legal implication. It held that abortion could be freely obtained in the first trimester, but that in the second trimester individual states could regulate abortion only to protect the mother’s safety. Justice Harry A. Blackmun, writing for the majority, stated that a state could impose restrictions on abortion in the third trimester, if the state found it in its interest to protect the child. However, the opinion also stated that a woman could still have access to abortion in that trimester for health reasons. Health was defined by the World Health Organization as denoting any condition that might impact a woman’s physical, emotional, psychological, or financial well-being, a provision that the RL movement interpreted as allowing abortion on demand at any time before parturition. The court derived the “right” to abortion from the Fourteenth Amendment: the right to privacy.

*Roe v. Wade* was partially modified in 2003. In that year, Congress passed a provision (HR S-3) that was signed by President Bush, banning what was termed “partial-birth abortion.” The resolution is strongly supported by proponents of RL. Many object to the medical procedure because it involves a surgeon’s crushing the skull of the fetus and suctioning out the contents of its brain, in order to reduce the size of the head which is typically too large to pass through a dilated cervix. The legislative resolution was confirmed by a 5 to 4 vote of the U.S. Supreme Court on April 18, 2007, but its effect on *Roe v. Wade* is a matter of controversy. Justice Kennedy, writing for the majority, said that it will allow other methods for late-term abortions and accordingly does not affect the *Roe v. Wade* decision that abortion is available at any time to women. Partial-birth abortions are normally performed only in the second

trimester (or more rarely in the third) and in general are relatively uncommon, although the number is also a matter of dispute. The Planned Parenthood Federation of America estimated the number of cases of partial-birth abortions to be 3000–5000 annually, but this has been disputed by RL organizations. The number of legal abortions in the USA is calculated by some authorities to be around 1.3 million, but even this figure has been questioned. Partial-birth abortions are typically justified by their supporters on the ground that the life of the mother is at stake or that the fetus is known to have an untreatable disease, or in other ways to be defective. Opponents of this practice state that after twenty weeks the fetus is already viable, and that partial-birth abortion is tantamount to the killing of an innocent postnatal child.

#### VIII: WHAT SHOULD PHILOSOPHY BE?

A rehearsal of the scientific or natural facts about abortion is useful with respect to the question, “What should philosophy be?” They tell us what happens biologically and developmentally from the moment of conception to birth. But science does not tell us whether the prenatal entity is innocent or a person; those matters fall within the scope of philosophy. Moreover, in 1973 medicine did not use the concept of a trimester. That notion has changed its meaning since then. It is now commonly used in obstetrical practice, and is considered part of the scientific vocabulary. But as defined in *Roe v. Wade* it originally belonged to the realm of institutional facts; including those about personhood. Legal facts are subcases of institutional facts, as I said earlier. In *Roe v. Wade*, for example, it was a legal fact that in the first trimester the unborn are not persons.

Curiously, there was an equally controversial judgment rendered by the Supreme Court in the Dred Scott case of 1857. Dred Scott was a black slave whose lawyers argued that as a resident of free territories, including Wisconsin and Illinois, he was entitled to citizenship. The 1857 decision of the Supreme Court that rejected this position led President Abraham Lincoln to issue the Emancipation Proclamation in 1863, and was one of the factors that led to the strengthening of the Abolitionist movement in the North (a movement that demanded the end of black slavery). Some historians and legal scholars have interpreted the decision as implying that Negroes are not persons. Whether this is how it should be interpreted is open to debate, since the decision did not emphasize the term “persons” but the term “citizenship.” Still,

in its first sentence it does use the phrase “any person” to describe the descendants of black Americans. Chief Justice Roger B. Taney, who delivered the majority opinion (7 to 2) stated, in essence, that:

1. Any person descended from black Americans, whether slave or free, is not a citizen of the United States, according to the Declaration of Independence.
2. The Ordinance of 1787 could not confer freedom or citizenship within the Northwest Territory to blacks.
3. The provisions of the Act of 1820, known as the Missouri Compromise, were voided because the act exceeded the powers of Congress, insofar as it attempted to exclude slavery in the northern part of Louisiana.

Those who have interpreted the Dred Scott decision as relegating blacks to the status of non-humans do so on the ground that blacks, as slaves, were regarded as private property, like cows or sheep, and could be sold, or even killed without penalty, if their owner or owners so decided.

Throughout this study I have asserted that the techniques used in informal philosophy can both illuminate and resolve philosophical impasses. Abortion is an excellent example for illustrating the applicability of these techniques to moral issues. They can clarify and in some cases resolve disputed claims. To illustrate how the process works, let us look at RL again to see if some of its provisions can withstand scrutiny.

## **IX: INNOCENCE**

The fourth premise of RL states that unborn entities are innocent of any crime, and therefore the killing of the innocent is murder. Murder is an institutional (legal) fact, and what counts as a case of murder is exceedingly complicated. Criteria differ from country to country. Even within the USA, each state has somewhat differing definitions. California alone has about 51 “jurisdictions.” The idea also has strong moral connotations. Because of such complexities, I feel that it would be impossible to deal with these matters in a single chapter; so I shall bypass them here. But “innocence” is relatively simple. Once again the dictionary can be of assistance. We find that “innocence” is defined as “the state or fact of being innocent.” If we now turn to “innocent,” we discover a definition which is especially helpful with

respect to RL. It states: “Innocence: not involving evil intent or motive: *an innocent misrepresentation*.”

The questions this definition raises for RL is whether any unborn entity can have evil intentions or have a motive to do or refrain from doing anything. According to the dictionary, the term does not apply to whatever is in the womb during gestation, since the unborn, so far as we know, do not have any intentions or motives whatever, evil or otherwise. The example that the lexicon gives and is embodied in the italicized phrase (*innocent misrepresentation*) applies to relatively mature beings, entities that have the capacity to represent or misrepresent situations, persons, or things by their words or actions. It is obvious that the term does not apply to recently born infants who may require months or years of nurturing before they have the linguistic capacities to describe or misdescribe someone or something. The point I am now making—that all words and phrases have limited application is apposite with respect to “innocent.” The claim is similar to that which I made in a previous chapter about “direct” and “indirect” and their adverbial forms. For example, it is impossible to scratch a table either directly or indirectly. The terms, when used with such physical actions as washing, polishing, or scratching, have no sensible use. The concepts thus differ from “on purpose” or “accidentally” that do have application in everyday life. It is possible to scratch a table on purpose or accidentally.

*My thesis is that it is part of logic, as the term is employed in informal philosophy, to determine the bounds of sense, and in particular to help one decide when the users of words exceed those bounds.* If words are stretched beyond their normal limits they cease to have any meaningful function. Normal limits are those that conform to the ways that native speakers use those expressions in everyday discourse. If so, it makes no sense to ascribe the term “innocent” to the unborn. PL thus contains a premise that is inapplicable and for that reason negatively affects the merit of the argument. Therefore, this finding supports my thesis that informal philosophy can make substantial contributions to the understanding and resolution of ethical and humanistic issues.

Similar comments apply to the soul. Its status is, for some individuals, *the* critical issue. They assert that from the moment of conception the unborn entity has a soul and that this is the defining condition of what it is to be a person. But such claims are neither supported nor negated by biology. Instead, it is primarily a religious notion, and different religions have different thoughts

about it. The assumption in Judaism, for example, is that the soul does not migrate from body to body, but in Hinduism each being is predestined to undergo innumerable different incarnations (*samsara*) and one's aggregate moral balance sheet (*karma*) will determine the length of each life and the specific form of each rebirth. Indeed, the prospect of innumerable lives is generally regarded with horror. To escape the cycle of constant rebirths is to achieve final emancipation (*moksa*). As one historian of religion remarks: "Life everlasting is the last thing a Hindu would aspire to."

The conception of the soul is different in Platonism and Christianity, even though Platonism is generally regarded as having a major influence on Christianity—as evidenced in the Gospel according to St. John. Both doctrines maintain that the soul is immortal, although they differ in that Plato expressly asserts (in the Myth of Er in the *Republic* (book X, 613–620) that souls occupy different bodies at different times, a thesis that the New Testament does not accept.<sup>13</sup> With respect to such assertions, science remains mute. Indeed, on the contrary, such statements generate a set of formidable conceptual problems, whose resolutions, if at all possible, require an approach that deviates from anything science can offer; that is, answers to some difficult questions: "Is there such a thing as the soul, and if so what is it?" "If there is such a thing does it leave the body when a person dies (as Plato believed) and is it immortal?" "Is reincarnation possible?" "Is the soul a distinctively human thing—that is, do animals lack a soul?" (as Descartes claimed). "Is there a difference between the death of the body and the death of the person whose body it is?" "If the soul is immaterial (i.e., non-somatic), how would any observational or experimental procedure verify its existence?" It is obvious that the scientific facts about gestation cast no light on these matters.

It will also be noticed that the RL argument, as presented earlier, does not mention the soul. For these reasons, and because of the complexities the differing religious connotations of the soul entail, I will also say nothing further about them here. Instead, I will have a critical look at the premises of RL. Two of these are central: (i) that from the moment of conception the unborn entity is a human being, and (ii) that it is a person. That the potential child in the womb is a human being is sometimes held to be an institutional fact by some proponents of PA. I disagree—I think it is a natural fact, although the issue is debatable. But that the unborn creature is a *person* has a different status. As *Roe v. Wade* indicates it is an institutional (legal) fact, and therefore

that what counts as a person falls well within the scope of philosophy. So how should the dispute be dealt with? Informal philosophy states that it is a matter of becoming clear about the meaning of “person” and that this requires argumentation and reasoning, as well as a resort to the dictionary.

### **X: INFORMAL PHILOSOPHY AND SCIENCE**

With these examples, we are now in a position to answer our central question: “What should philosophy be?” The answer, as I said in the previous section, is informal philosophy. But before expanding on the response, a few preliminary comments are in order.

First, informal philosophy emphasizes that a philosophical problem does not arise from an absence of scientific data. If scientific facts were pertinent that would be a straightforward explanation of how the problem is generated. But since there is no doubt about the science—how the ovum is fertilized, how it grows, the role that DNA plays in its development and so forth—the issue of whether any unborn entity is a person, or is innocent, is not engendered by a scarcity of biological knowledge.

Second, informal philosophy holds that a moral impasse (or more generally a philosophical impasse) is not resolvable by an appeal to the scientific facts. This statement seems true if it is also true that philosophical problems do not arise from a lack of factual data. If a problem does not arise from a deficiency of scientific fact, it is difficult to see how any such fact or set of facts would be decisive in its solution. In the issue about the justification of abortion, what scientific facts would finally dispose of the problem? That problem turns on whether pieces of tissue are persons or when such pieces become persons, and science has nothing *decisive* or *conclusive* to say about those matters.

Third, it should not be inferred from these comments that science has no role or roles to play in philosophical matters. It often has; and the particular role it plays will depend on the particular case involved. This is true in epistemology, where a host of visual defects, such as agnosia, affect seeing; in metaphysics, where cosmological explanation is rife; and in moral philosophy itself. Since we have been discussing abortion, it is worth describing in some detail the impact that scientific findings can have in influencing moral decisions. I am referring to Down syndrome which is a disorder caused by the presence of all or part of an extra twenty-first chromosome. It can be diagnosed by a number of tests, including nuchal translucency/free beta/PAPPA



screening—a diagnostic procedure that in five percent of cases gives false results. However, there are other tests that are more reliable, such as amniocentesis (an invasive procedure that carries a small risk, because it involves an operation that consists in withdrawing amniotic fluid from the amniotic sac and identifying fetal cells). It is also the most reliable of all tests, giving an accurate reading in more than 99.8 percent of cases. A 2002 review of elective abortion rates in the United States found that around 91 percent of pregnancies with a diagnosis of Down syndrome, based on amniocentesis, were terminated.

A child born with Down syndrome faces a number of health hazards, among them cognitive impairment, short stature, hearing defects, and the possibility of an early death—typically before the age of fifty. It is also characteristic of the disease that most people with Down syndrome who live into their forties begin to suffer from an Alzheimer's-like dementia. Because of such factors, children born with Down syndrome require special home care by their parents and special schooling for educating those suffering from the malady.

The illness raises moral and humanistic issues for physicians, parents, and ethicists. Some conservative commentators have called it “eugenics by abortion.” But it is clear that when the diagnosis is made in the case of the unborn it raises considerations that cannot be solved by science, and that require non-scientific decisions: such as whether to abort the defective entity. My point here is a general one, namely that even if science cannot be decisive about the appropriateness of abortion, its diagnostic procedures are often relevant to such a resolution. The scientific facts thus sometimes play the role of initiating or raising moral concerns, even if they cannot resolve those concerns. This is generally true over the whole range of issues that philosophers have considered. The moral to be drawn from this and related instances is that science in general cannot be discounted with respect to philosophical perplexities; my view is that, depending on the case, it plays an ancillary, but important, role in such instances.

These comments, taken together, give rise to a characterization of informal philosophy, namely that it is a *conceptual activity*. This is a somewhat complicated notion that may be explained by contrasting conceptual and factual problems. Suppose the question is: “How far is it from San Diego to Los Angeles by automobile?” Let us assume that there is no difficulty in understanding

the question—then the answer will be straightforwardly factual. It will consist of such statements as: “It is 120 miles” or “It is 121 miles.” The answer may be derived in a variety of ways—by driving the distance personally and seeing what the odometer reads after the trip, or by checking the distance on a good road map. But the important thing to see here is that the facts provide a total solution to the problem. There is nothing conceptual left over. The results can be right or wrong—true or false. It just depends on the facts.

But the informalist believes that philosophical problems are not straightforwardly factual in this way. They involve issues of a different order: namely, to explicate or come to understand assertions or concepts that are in everyday use and that are not scientific or factual. The concepts include—and this is only a partial list—responsibility, justification, personhood, guilt, evidence, justice; and the assertions to be examined in the case of abortion include such remarks as: “the unborn entity is innocent” or “the unborn entity is a person.” In section IX, I offered an example of how informal philosophy can help resolve the question of whether the unborn are innocent, but that endeavor dealt with only one aspect of the multitude of complexities that abortion raises. Central to those complexities is whether every unborn entity is a person, and I will discuss that broader issue now. As we shall see, philosophical disputes are notoriously deep, and involve many twists and turns. Their resolutions require argumentation and an appeal to the dictionary, and these two features often intertwine in multifarious ways. In order to grasp such complexities, I will begin with a distinction that initially may seem remote but which will soon be seen to be relevant in casting some light on the point in question.

The distinction is between two groups who believe that life after death is possible. I will call them “survivalists.” The basic division is between religious individuals who believe that personhood is defined by the possession of a soul, and secularists who believe that something survives the death of the body but that it is not necessarily a soul. They have in common the assumption that a *person* is a complex entity, consisting of a body and an element that is incorporeal. In the case of abortion, both believe that it is the possession of this immaterial feature that determines the unborn entity to be a person from the moment of conception. Because the issues surrounding the nature of the soul are not easily or briefly treated in a single chapter, I will examine only the secular form of survivalism. It may, nonetheless, carry us some way toward

resolving the question of what a person is, and the role or roles that informality can play in that task.

In both the scientific and non-scientific literatures one commonly finds the claim that the death of a person is identical with the death of his or her body. In our inquiry into the nature of the secular survivalist outlook, we should avoid committing ourselves to the position that when a person dies it is only the body that dies. This in effect means that we are not dismissing secular survivalism out of hand. In order to leave such an option open, it is probably wise to start by asking: “Is it just the body that dies?”

Of course, people have all sorts of reasons—religious, psychological, or pragmatic—for supposing that a person is not simply identical with his or her body, and for assuming that the total bundle that constitutes personhood includes a feature that survives the death of the body. I shall now formulate an argument that provides a different ground than any traditional set of reasons in support of the secularist position. It will thus constitute a kind of logical reconstruction of the intuitions that non-religious folks have who insist that something persists after the death of the body.

In effect, it amounts to the creation of a scenario that describes a woman (whom we shall call “Mabel Williams”), who recently succumbed to a fatal and incurable disease, a liver cancer that had metastasized, and that had caused her great pain. Under the circumstances, it is reasonable to suppose that in the latter stages of this malady she complained to nurses and other attendants about the distress she was suffering. She may have said: “My leg hurts,” or “My head aches,” or “My whole body aches,” or “I have a terrible pain in my back.” So agreeing that it was Mabel Williams who died, we can rephrase the question about personhood in this way: “What did such words as ‘my’ and ‘I’ pick out in the complaints she made about the discomfort she was feeling?” It is obvious from these linguistic/conceptual clues that she did not identify *herself* with her leg or her head or her body. She was clearly distinguishing herself from those things that ached. Secular survivalists would not only concur with this statement, but would say something even stronger, namely that the person, Mabel Williams, *was not identical with* any of her body parts taken singly or collectively. They would say this because they believe that even if her body dies something incorporeal survives, and that the element that survives the destruction of the body is a person. That in brief is the argument—namely that a distinction is being drawn in everyday speech

between a person and that person's body. The philosopher Wittgenstein ends *The Blue Book* (p. 74) with a remark that supports this point of view. He writes:

The kernel of our proposition that that which has pains or sees or thinks is of a mental nature is only, that the word "I" in "I have pains," does not denote a particular body, for we can't substitute for "I" a description of a body.

It is striking that Wittgenstein describes that which has pains or sees or thinks as mental. His outlook is thus to be distinguished from clinical views that identify the person and the body or from those that contend that the brain—a physical organ—is the item denoted by "I." I also find his statement suggestive of the secularist outlook, since many of its proponents believe the soul to be mental—to be a form of disembodied consciousness, for example. But whether a reference to the mental is the only or even the best way of describing a person is a tortuous road I shall not follow. Therefore, without committing ourselves to the mental nature of the "I," while following the rest of Wittgenstein's linguistic clues, we can then ask: "What was Mabel Williams when she died if she wasn't the same thing as her body?"

A possible, even a plausible, answer to this question is that Mabel Williams was a person and it was that person that died. The idea that when a human being dies it is a person, and not just the body that dies, has some impressive scientific corroboration, found in the conclusion of a lengthy report of the Twenty-Second World Medical Assembly held in Sydney, Australia, in 1968. As its authors put it "clinical interest lies not in the state of preservation of isolated cells but in the fate of a person." Unfortunately, their report did not go on to define personhood. If we add their conclusion to that arrived at, on linguistic grounds, we find medical support for the survivalist view that a person is not identical with any somatic feature or even with the whole body itself. But in order to gain a full understanding of the survivalist view—and especially whether anything can survive the demise of the body—we shall have to determine what it is to be a person. And how does one determine that? At this point, resource to a dictionary may carry us further—perhaps even to a resolution of the matter.

This is because a dictionary not only describes the uses and meanings of words, but in so doing it can give one a sharpened perception of the phe-

nomena themselves—in this case persons. And that is what we are really after. But there is still another benefit. Here is what J. L. Austin said in this connection:

Our common stock of words embodies all the distinctions men have found worth drawing in the lifetimes of many generations: these surely are likely to be more numerous, more sound, since they have stood up to the long test of survival of the fittest, and more subtle, at least in all ordinary and reasonably practical matters, than any that you or I are likely to think up in our arm-chairs of an afternoon—the most favoured alternative method.<sup>14</sup>

In trying to figure out what a person is one is well advised to follow Austin's advice. So instead of an armchair I shall start with a dictionary. In this case, the entry under "person" is complex but helpful. It defines "person" in two ways: first: "A human being as distinguished from an animal or thing." This description clearly applies to Mabel Williams before her death. That she was not an animal or thing is obvious; the fact that she could talk in English immediately distinguished her from any member of the animal kingdom, and that she was not a thing is also obvious. The term "thing" is defined as "a material object without life or consciousness." The definition implies that after Mabel died, her corpse was a thing.

The second part of the definition states that a person is "a being characterized by conscious apprehension, rationality, and a moral sense." This definition gives us three candidates: *conscious apprehension*, *rationality*, and *a moral sense*. Without debate or further explanation, I will simply stipulate that the candidate I favor is rationality. But I should explain to the reader that I do not argue this issue here, interesting though it is, because my concern in this chapter is directed toward answering the more important question of whether *anything* can survive the death of the body. This is a more significant issue than which of the candidates fits the bill, since if the outcome of the inquiry is negative, there is no point in asking whether any of these features will be the ingredient that survives when the body dies.<sup>15</sup>

We have seen that Wittgenstein thinks the "I" is mental. But if the "I" is not mental, how can one explore the nature of personhood without using that term? We can do this by contrasting the ways in which good dictionaries present their definitions of "person" with the ways in which they give the definitions of

animals. In the latter cases, they tell us what those animals *are* by telling us what they *look like*. They do this by enumerating their physical attributes and providing drawings or pictures of them. Consider the turtle, for instance. The dictionary states that it is a reptile enclosed in a two-part shell (consisting of a carapace and a plastron) from which its head, tail, and four legs protrude. It also provides a sketch. Writers of prose or poetry can use the description and the depiction for various literary purposes. Here, for instance, is a four-line poem that makes the turtle's appearance a source of humor:

The turtle lives twixt plated decks  
Which practically conceal its sex.  
I think it clever of the turtle  
In such a fix to be so fertile.<sup>16</sup>

But in the entry for “person” dictionaries do not mention any physical attributes and do not provide accompanying visual representations or portraits. On the basis of a lexical entry one cannot determine what a person looks like. The contrast between the treatment of animals and persons emerges clearly if we consider the entries for “tiger” and “Doberman pinscher,” and their accompanying sketches as typifying how wordbooks treat beasts.

*Tiger.* 1a: a large Asiatic carnivorous mammal (*Felis tigris*) having a tawny coat transversely striped with black, and a long untufted tail that is ringed with black, underparts that are mostly white and no mane, being typically slightly larger than the lion with a total length usu. of 9 to 10 feet but sometimes of more than 12 feet, living usu. on the ground, feeding mostly on larger mammals (as cattle), in some cases including man, and ranging from Persia across Asia to the Malay peninsula, Sumatra, and Java, and northward to southern Siberia and Manchuria—compare BENGAL TIGER, SABER-TOOTHED TIGER.<sup>17</sup>

Note that the characterization of “tiger” describes the creature as having a tawny coat transversely striped with black, and a long untufted tail; it also gives its size, what it feeds on, and adds that it ranges from Persia across Asia to the Malay peninsula, Sumatra, and Java, and northward to southern Siberia and Manchuria.

Let's go to a different dictionary to reinforce our point about how animals are portrayed. The definition of “Doberman pinscher” is:

A breed of large smooth-coated terriers, usually black-and-tan or brown, with long forelegs, and wide hindquarters.<sup>18</sup>

There is the usual sketch of the dog with a remark that it is normally 24 to 27 inches high at the shoulder.

In the case of “person,” by way of contrast, there is no mention of size, color of skin, weight, or habitat. Now why the difference between these types of definitions? A possible answer, one that would appeal to a survivalist is:

*The conceptual model that most human beings have is such that persons are not identified with any physical feature or set of such features and the opposite is true of animals.*

So if persons are not defined by their physical attributes, perhaps the answer about personhood that we are looking for is a feature that is not physical. Rationality would seem to fit this characterization. But how do we decide whether it is or isn't a physical feature? Again, we can appeal to the dictionary for help. The appeal requires two steps: first to “rationality” and second to “rational.”

“Rationality” is defined as the quality or state of being rational. If we now go to “rational” we find the following:

“Rational” implies a latent or active power to make logical inferences and draw conclusions that enable one to understand the world about him and relate such knowledge to the attainment of ends, often in this use, opposed to *emotional* or *animal*; in application to policies, projects or acts, *rational* implies satisfactory to the reason or chiefly actuated by reason (the triumph of the rational over the emotional side of man).<sup>19</sup>

We can use the definition to understand what “rationality” means via this staggered process; but it will be more convenient to focus on the adjective “rational” in what follows.

As the definition indicates, a rational being has the power to make logical inferences and to draw conclusions that enable one to understand the world. The definition states that in this use *rational* is opposed to *animal*. What is the intended opposition? It is not, I submit, that animals cannot, at least to some extent, understand the world about them. Instead, I take the point to be that

there is at least one use in English in which “rational” and its antonym “irrational” primarily apply to persons. In this respect, we might contrast these terms with “even” and “odd.” Though one can say of a person that he or she is odd, one cannot sensibly say that a person is even—in the sense of being divisible by two. “Even” and “odd” thus have their primary turf in mathematics.

The lexical characterization of “rational,” like that of all words, has similar boundaries. Whether and when one can apply this epithet or its antonym to animals are difficult and controversial issues. A person who eats to the point of obesity might be said to be irrational, but this would probably not be said of a dog that is radically overweight. Though one might say of a pet, say a Welsh corgi, that it can think and even that it is intelligent, it is dubious that one would be willing to affirm that it can deduce from its hearty appetite that its prospects for early death are increased. But in knowing that Mabel Williams was a person we know that she was in principle capable of perceiving a logical relationship between obesity and the possibility of impaired health. Unlike one’s favored pet, she was clearly capable of making reasonably sophisticated logical inferences and drawing conclusions from them that enabled her to understand the world about her.

That we cannot say this of a dog is significant. The term, “rational,” is generally applied to creatures occupying comparatively high places on the scale of evolutionary complexity, and thus only rarely, if at all, to bacteria or nematodes, or even to canines. Still, more narrowly, it is normally used only of beings exhibiting a considerable degree of intelligence—as the definition indicates, of those capable of making logical inferences and drawing conclusions about the world. The concept includes the ability to organize the world under rubrics that transcend those that the lower-order animals are capable of, such as familial relationships. To be aware that A is J’s uncle is to allow the inference that either J’s father or mother is a sibling of A. Such logical inferences are probably beyond the capacities of dogs and cats.

The dictionary also explains why many persons draw a sharp distinction between persons and animals. From this perspective, animals are simply identical with their physical properties. The definition of “person” also explains why survivalists insist that the entity that survives the death of the body must be incorporeal. Rationality as a non-physical characteristic would thus be a prime candidate for what survives the death of the body.



In opposition to survivalism, why do so many biologists and other types of scientists insist that when the body dies the person necessarily dies?

The main argument that nothing can survive the death of the body is based on medical evidence. The aim of the argument is to prove that persons in deep comas lack significant response to external stimuli. When death finally occurs, the lack of response is even more obvious; and hence physicians conclude that rationality in dead persons has been extinguished. In arriving at this judgment, proponents of the argument distinguish consciousness from rationality. Persons in a deep sleep, for example, are conscious, but they lack the power of thought or the ability to draw logical conclusions that may affect themselves or others.

Survivalists do not find the argument convincing. They contend that what the medical data show is simply that persons in comas can neither speak nor act. But they claim that it does not follow from such observations that comatose persons are not rational agents who cannot think or reason. They point out that for all physicians know, comatose persons may be aware of external and internal phenomena, even though they cannot communicate about or react to them. This riposte is not without evidential support. There are substantiated reports that some persons who have emerged from prolonged comas have stated that while in that condition they were aware of the voices and caresses of family members, that they had dreams, felt pains, and even wondered whether they would ever recover. This response creates a challenge for science. In effect, it shifts the onus onto physicians, demanding they prove that a comatose person lacks any awareness at all, or the ability to think rationally. The real issue, according to survivalists, is thus:

*Can a physician ever know with certainty that a comatose person is not thinking or deliberating or that the patient is not aware of various kinds of happenings, whether internal or external?*

Survivalists believe the answer is “no.” They believe this on the ground that whatever persists beyond the death of the body is not a physical feature and is thus not detectable by an external observer. That the patient cannot react to or speak about experiences which only he or she can be aware of is thus the first step in a complex argument whose conclusion is that some incorporeal

entity may exist even after the body has died. Just because a dead person cannot speak it does not follow that such a person cannot continue to be aware of and reflect on phenomena that no external observer can detect.

The survivalist response does not depend solely on this line of reasoning. A second objection to the medical-biological argument is that it is question begging. It assumes that oxygen deprivation not only stops the machine but wrecks the machinery. But survivalists stress that to speak of a person as a machine is essentially to speak of the body and/or its parts. So even granting that the body is wrecked, survivalists contend that it does not follow that a non-somatic constituent is also wrecked. Biologists are assuming exactly what is in question; that if the body dies nothing incorporeal survives. The survivalist challenge to this line of reasoning is: "How does a physician or biologist prove that?"

The scientific/medical riposte to both arguments is complicated. It turns on how "death" is defined. Controversies about death typically arise as a result of modern technological developments in medicine. These have made it possible to maintain breathing in comatose individuals by respirators and to eliminate metabolic waste products by dialysis. The problem of determining when a human being is defunct is especially acute in cases of prospective organ transplants. Traditional signs of mortality, such as cardiac arrest and cessation of circulation, are often absent in patients who are in an irreversible vegetative state. Because such individuals never recover and yet, when assisted by technical devices, exhibit signs of life, doctors tread a fine line in deciding when to remove a vital body part. If the patient dies before such a procedure is initiated, the organ normally does not function well, or sometimes not at all, when inserted into another person. Yet no physician wishes to expedite death in such a circumstance.

As a result of such problematic situations, a medical definition was developed in the late 1970s that identified the death of a person with the death of a special part of the brain: the brain stem. The distinction recognized that some persons in long-term comas had approached, though they had not yet reached, what was called "the point of no return." With the death of the brain-stem the point of no return had indeed arrived and from a clinical standpoint the restoration of life was no longer possible. In July of 2001 this definition was modified. The California Medical Association issued a new protocol that distinguished the death of the brain stem from what was termed "brain death" or "cerebral death." This was described as the irremediable loss of the clinical

function of the *entire* brain and is characterized by (i) coma or unresponsiveness, (ii) absence of brain-stem reflexes, and (iii) apnea or the suspension of respiration. The death of the entire brain, as measured by these tests, includes the death of the brain-stem as a subcase. The new view also states that the older term “irreversible vegetative state” is to be discarded as a definition of death since persons in a prolonged coma and on life support may nevertheless exhibit vital signs.

In the light of this new definition, physicians state that as long as a comatose person is not brain dead, it is possible for an external observer to determine with a high degree of probability that the patient is experiencing some sort of sensation, whether conceptual or otherwise. Even if the person cannot speak or act, areas of the brain are activated in such cases, and it is possible by sophisticated probes to detect their operations. In those situations where the patient has a flat brain scan, no neural processes are taking place, and physicians believe it is thus plausible to infer that the patient is not thinking or reasoning. In the case of a dead person, the inference is even more compelling, since brain activity has ceased entirely.

Once again, survivalists do not find this line of argumentation convincing. They do not contest the claim that instruments can detect neural activity in comatose patients who are not brain dead, and they agree that in certain cases modern contrivances can allow observers to determine whether persons in a deep coma are having dreams, or other experiences. But they argue that the medical findings do not demonstrate that when no brain activity is detectable it follows that all experience and sensation have vanished. They say the situation is analogous to the following. From the fact that some fish in a large body of water make waves so that their movements can be tracked it does not follow that where there are no waves there are no fish. The survivalists’ position is that from the lack of observational data no inference about the incorporeal follows. This counter-argument depends on the thesis that what survives the death of the body is not a physical feature, and therefore that it cannot be detected by devices capable of measuring only neuronal or other sorts of physiological happenings.

## **XI: CONCLUSION**

In concluding this book, I will address three questions that emerge from the preceding *mélange* of arguments, counter-arguments, and definitions.

- I: Is there any reason to believe that something incorporeal survives the death of the body?
- II: If there is such an entity, does it define personhood? If there isn't, how is personhood to be defined?
- III: What is the relevance of these arguments and definitions for informal philosophy?

The answer to I is “yes,” but that answer depends on what counts as a good argument. The same answer applies to III. As we have seen, informal philosophy is conceptual, rather than scientific in nature. Accordingly, it resorts to argumentation and to dictionary definitions to produce its results. Those results are logical in a broad sense of the term. Negatively, they are used to draw limits to what it is sensible to say. In a positive sense, they open options that are often closed by other disciplines. In the case of whether something immaterial can survive the death of the body, informal philosophy holds that it is theoretically possible that there is such an entity. But it warns that from the fact that something is logically possible it does not follow that it is actual. A friend may be a possible murderer but he is not an actual murderer. Nonetheless, the opening of new possibilities in the case of post-mortem survival is an important finding. It indicates that medicine and biology have a restricted view about death and survival, and that other alternatives should be considered. Informal philosophy’s arguments depend on concepts that are often embodied in linguistic expressions. To illustrate how it operates—we are now answering III—here is an example, taken from Wittgenstein of reasoning that is wholly conceptual. I find it convincing and believe that any reader will do so as well.

Premise: “A man can pretend to be unconscious.”

Conclusion: “A man cannot pretend to be conscious.”<sup>20</sup>

The premise is obviously true. It is easy to visualize a situation where a man pretends to be unconscious. It is obvious that, for whatever reason, an individual can simulate a state in which he is non-responsive to external stimuli, such as questions. The individual is not really unconscious but can mimic the state of one who is. An idea that the dictionary does not mention, but is generally presupposed in everyday speech, is that such simulation is intentional. It has a purpose behind it, perhaps to deceive another. In principle, then, the

simulator can indicate what purpose is being served by the pretense. In certain cases, those witnessing his act can also discover the purpose behind it.

The conclusion is equally compelling. There is no conceivable way in which one can pretend to be conscious. The argument gets its force from the concepts of “pretending” and “conscious.” As I explained earlier, every term in every language has logical limits, and this applies both to “pretending” and “conscious.” When juxtaposed, as they are in Wittgenstein’s argument, they can readily be seen to be incompatible. Their incompatibility is a direct function of what the terms mean in everyday use. As the argument indicates, it is palpably impossible to simulate being conscious.

I now turn to II: In our discussion of post-bodily survival, I have produced three arguments, each of which is conceptual, that make it convincing that there is a component in every person that is not identical with his or her body. On the assumption that there is more to personhood than the body, it is obvious that whatever distinguishes a person and the body cannot be somatic or physical. It follows that the entity, being non-corporeal, cannot be observed by the usual third person experimental or observational techniques. To discover that there is such an entity, and what it is, thus requires conceptual analysis and argumentation. Among such arguments (there may be more) are the following: (i) A corpse is defined as “the dead body of a person.” It follows from this definition that personhood and the dead human body are to be differentiated. (ii) We have constructed a hypothetical scenario about a woman who has just died and whom we named “Mabel Williams.” There is an argument embedded in the scenario whose conclusion is that the body must be discriminated from the person. That argument runs as follows: In using ordinary language to describe pains she was having before her demise, for example in saying “I ache all over” or “my back aches,” she was obviously distinguishing herself from any somatic element. This argument depends on what such words as “I” and “my” mean. My contention is that in everyday English they do not refer to the body or to any of its parts. (iii) We have compared what the dictionary says about animals with what it says about persons. The thrust of such a distinction should be taken seriously. As Austin indicated in a quotation we cited earlier:

Our common stock of words embodies all the distinctions men have found worth drawing in the lifetimes of many generations; these surely are likely to be

more numerous, more sound, since they have stood up to the long test of survival of the fittest, and more subtle, at least in all ordinary and reasonably practical matters, than any that you or I are likely to think up in our arm-chairs of an afternoon—the most favoured alternative method.<sup>21</sup>

The dictionary is a collection of such distinctions. It is thus plausible to conclude from the lexical entries in a multitude of dictionaries that animals are defined by their physical attributes, whereas persons are not. It is also difficult to argue compellingly that the body and its various parts are not physical entities, so that the lexical clues lead to the plausible inference that personhood is not a physical attribute. Accordingly, when the body dies, it does not follow that a person who has that body necessarily succumbs. That conclusion is derived from two compelling descriptions: that the human body is a physical entity and that a person is not. These descriptions allow for the possibility that something incorporeal survives the annihilation of the body.

The third argument, like each of its predecessors, is an instance of conceptual reasoning. I submit that the three arguments, taken as a group, demonstrate that if anything survives the extinction of the body it is not an observable or physical feature. I submit that these arguments thus contain substantial grounds for supposing there is such an immaterial entity and therefore that post-somatic survival is possible. Like Wittgenstein's thinking about the impossibility of pretending to be conscious, the foregoing arguments are all conceptual in nature. They open the door to possibilities that the medico-biological community forecloses, and they establish that informal philosophy can help resolve problems that transcend the scope of scientific inquiry.

## NOTES

1. I will *briefly* discuss these in the following section. But for a more extensive presentation, see my jointly authored book, *Much Ado about Non-Existence: Fiction and Reference* by A. P. Martinich and Avrum Stroll (New York: Rowman and Littlefield, 2007), 31–36.

2. Richard McKeon, ed., *The Basic Works of Aristotle*, book IV, “Metaphysics” (New York: Random House, 1941), 7, 25.

3. Bertrand Russell, "The Philosophy of Logical Atomism," reprinted in *Logic and Knowledge*, R.C. Marsh, ed. (London: Allen & Unwin, 1956), 182.
4. John R. Searle, *Construction of Social Reality* (New York: The Free Press, 1995), 34.
5. Martinich and Stroll, *Much Ado*, 36–37.
6. Aristotle, "Metaphysics," book I, chapter 3.
7. Aristotle uses this term in "Metaphysics," book I, chapter 3.
8. I will use *The American College Dictionary*, C.L. Barnhart, ed. (New York: Random House, 1974).
9. C.D. Broad, "Critical and Speculative Philosophy," in *Contemporary British Philosophy*, H.H. Muirhead, ed. (London: Allen & Unwin, 1924), 78–79.
10. Ludwig Wittgenstein, *Tractatus Logico-Philosophicus* (London: Routledge and Kegan Paul, 1922), 4.111.
11. Stephen Schwartz. *The Moral Question of Abortion* (Charleston, S.C., Sophia Institute Press, 1990), chapter 2.
12. Thomas Hobbes, *Leviathan, with selected variants from the Latin edition of 1668*, E. Curley, ed. (Indianapolis: Hackett, 1994), chapter XIV.
13. I have discussed *in extenso* these differences in *Did My Genes Make Me Do It? And Other Philosophical Dilemmas*, 63–79.
14. J. L. Austin, "A Plea for Excuses," in *Philosophical Papers* (Oxford: Clarendon, 1961), 130.
15. In *Did My Genes Make Me Do It?* I argued the question about what survives. At that time, I concluded that it was conscious awareness, but I have now changed my mind and believe the best candidate is rationality. Still, each of the options has something to be said for it.
16. Ogden Nash, *The New Yorker Magazine* (November 15, 1930).
17. *Webster's Third New International Dictionary* (Springfield, Mass.: Merriam, 1961), 2392.
18. *The American College Dictionary*, 356.

19. *The American College Dictionary*, 1885.

20. Wittgenstein's later philosophy tends to avoid explicit argumentation. Instead we often find questions that, when modified, are tantamount to arguments. We might call them "embedded" or "submerged arguments." The so-called "argument" above is thus a reconstruction of a sentence taken from *Zettel* (395). The citation reads as follows: "A man can pretend to be unconscious, but *conscious*?" I have interpreted the sentence, when divided into its components, to contain an argument whose conclusion is that it is impossible to pretend to be conscious.

21. Austin, "A Plea for Excuses," 130.

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