

special cases of the more general characteristics of the human mind, How should we proceed to examine the mind?

I. DESCARTES AND OTHER DISASTERS

In philosophy there is no escaping history. Ideally, I sometimes think, I would just like to tell my students the truth about a question and send them home. But such a totally unhistorical approach tends to produce philosophical superficiality. We have to know how it came about historically that we have the questions we do and what sorts of answers our ancestors gave to these questions. The philosophy of mind in the modern era effectively begins with the work of René Descartes (1596-1650). Descartes was not the first person to hold views of the kind he did, but his view of the mind was the most influential of the so-called modern philosophers, the philosophers of the seventeenth century, and after. Many of his views are routinely expounded, and uncritically accepted today by people who cannot even pronounce his name. Descartes' most famous doctrine is dualism, the idea that the world divides into two different kinds of *substances* or entities that can exist on their own. These are mental substances and physical substances. Descartes' form of dualism is sometimes called "substance dualism."¹

Descartes thought that a substance has to have an essence or an essential trait that makes it the kind of substance that it is (all this jargon about substance and essence, by the way, comes from Aristotle). The essence of mind is consciousness, or as he called it "thinking"; and the essence of body is being extended in three

dimensions in physical space, or as he called it “extension.” By saying that the essence of the mind is consciousness, Descartes is claiming that we are the sort of beings we are because we are conscious, and that we are always in some conscious state or other and would cease to exist if we ceased to be in some conscious state. For example, right now my mind is concentrating consciously on writing the first chapter of this book, but whatever changes I go through when I stop writing and, for example, start eating dinner, I will still continue to be in some conscious state or other. In saying that the essence of body is extension, Descartes is claiming that bodies have spatial dimensions: the desk in front of me, the planet Earth, and the car in the parking lot are all extended or spread out in space. In Descartes’ Latin terminology the distinction is between *res cogitans* and *res extensa*. (Descartes’ name, by the way is a contraction of “Des Cartes,” Latin: “Cartesius,” meaning of the cards; and the corresponding English adjective is “Cartesian”)

Cartesian dualism was important in the seventeenth century for a number of reasons, not the least of which being that it seemed to divide up the territory between science and religion. In the seventeenth century the new scientific discoveries seemed to pose a threat to traditional religion and there were terrific disputes about the apparent conflict between faith and reason. Descartes partly, although not entirely, defused this conflict by, in effect, giving the material world to the scientists and the mental world to the theologians. Minds were considered to be immortal souls and not a proper topic of scientific investigations, whereas bodies could be investigated by such sciences as biology, physics, and astronomy. Philos-

ophy, by the way, he thought could study both mind and body.

According to Descartes, each essence has different modes or modifications in which it can occur. Bodies are infinitely divisible. That is, they can in principle be divided up indefinitely into smaller pieces, and in this sense each body can be destroyed, though matter in general cannot be destroyed. The amount of matter in the universe is constant. Minds, on the other hand, are indivisible, that is, they cannot be divided into smaller pieces, and thus they cannot be destroyed in the way that bodies can. Each mind is an immortal soul. Bodies, as physical entities, are determined by the laws of physics; but minds have free will. Each of us as a self is identical with his or her mind. As living human beings we are composite entities, comprising both a mind and a body, but for each of us the self, the object referred to by "I," is a mind that is somehow attached to our body. Gilbert Ryle, a twentieth-century philosopher of mind, sneered at this aspect of Descartes' view by calling it the doctrine of "the ghost in the machine." Each of us is a ghost (our mind) inhabiting a machine (our body).² We know both the existence and the contents of our minds by a kind of immediate awareness, which Descartes summarizes in the most famous sentence of his philosophy, "*Cogito ergo sum*": I think therefore I exist. This looks like a formal argument with "I think" as premise and "I exist" as conclusion, but I believe that Descartes intended it also to record a kind of inner inspection of the existence and the contents of the mind. I cannot be mistaken about the existence of my own consciousness, hence I cannot be mistaken about my own existence, because it is my essence to be a conscious (that is, thinking) being, a mind. Nor can

I be mistaken about the contents of my mind. If it seems to me, for example, that I have a pain, then I do have a pain.

Bodies, on the other hand, cannot be known directly but only indirectly by inferring their existence and features from the contents of the mind. I do not directly perceive the table in front of me; but, strictly speaking, I perceive only my conscious experience of the table, my “idea” of the table; and I infer the existence of the table from the presence of the idea. My present idea of the table is not caused by me, so I have to assume that it is caused by the table.

Descartes’ account of the relationship between mind and body can be summarized in the accompanying chart. In addition to having an essence each substance has a series of modifications or properties, and these are the particular forms that the essence takes.

	Substances	
	Mind	Body
Essence	Thinking (consciousness)	Extension (having spatial dimensions)
Properties	Known directly Free Indivisible Indestructible	Known indirectly Determined Infinitely divisible Destructible

Descartes’ views have led to endless debates and it is fair to say that he left us with more problems than solutions. The account that I just gave you, brief as it was, of reality as dividing into the mental and the physical, leaves us with a bushel of problems of which here are eight that most concerned Descartes himself and his immediate successors.

1. The Mind-Body Problem

What exactly are the relations between the mental and the physical, and in particular how can there be causal relations between them? It seems impossible that there should be causal relations between two completely different metaphysical realms, the physical realm of extended material objects and the mental or spiritual realm of minds or souls. How does anything in the body cause anything in the mind? How does anything in the mind cause anything in the body? Yet, it seems we know that there are causal relations. We know that if somebody steps on my toe, I feel a pain even though his stepping on my toe is just a physical event in the physical world, and my feeling of pain is a mental event that occurs inside my soul. How can such things happen? Just as bad: it seems there are causal relations going the other way as well. I decide to raise my arm, an event that occurs inside my conscious soul, and, lo and behold, my arm goes up. How are we supposed to think that such a thing could ever happen? How can a decision in my soul cause a movement of a physical object in the world such as my body? This is the most famous problem that Descartes left us, and it is usually called the “mind-body problem.” How can there be causal relations between the two? Much of the philosophy of mind after Descartes is concerned with this problem, and it is still, in spite of all of our progress over the centuries, a leading problem in contemporary philosophy. I believe it has a fairly obvious general philosophical solution, which I shall explain later; but I have to tell you in advance that many—maybe most—of my colleagues are strongly in disagreement with my claim that we have a ready solution to Descartes’ problem.

There are really two sets of problems. How can anything physical produce an effect inside my soul, which is nonphysical, and how can events in my soul affect the physical world. In the past century and a half the first of these questions has been transformed in a way that Descartes would not have accepted. In its modern version, the question is, How can brain processes produce mental phenomena at all? How can brains cause minds? Descartes did not think such a thing was possible, because on his account minds have an existence completely independent of the brain. The problem for Descartes was not the *general* question of how a mental substance can arise out of neurobiology, because for him it cannot. His question was rather how *specific* mental contents such as feeling a pain can arise from the impact of an injury to my body. We think the very existence of a mind is explained by the operations of the brain. Descartes did not think that was possible. For him the question was only how *specific* thoughts and feelings, such as a sensation of pain, can be caused by events occurring to the body.

It is important to emphasize this point: we tend to think, even the dualists among us, that our bodies with their brains are conscious. Descartes did not think that. He thought bodies and brains could no more be conscious than tables or chairs or houses, or any other hunk of junk. Conscious souls are separate, though somehow attached to human bodies. But no material object, living or dead, is conscious.

2. The Problem of Other Minds

I said that according to Descartes each of us is a mind and that each of us knows the contents of his or her mind directly, but how do I know that other people have minds?

interesting to you, you are likely to find this book interesting. If you cannot for the life of you figure out why anybody would be interested in these problems, then this is probably the wrong book for you. The book is not a historical book, and I will not say a great deal about the development of these problems historically. However, since I introduced eight of them by way of Descartes as their origin, I want to tell you, however briefly, what his answers to these eight questions were. I think that, without exception, his answers were inadequate, and to his credit, he was often fully aware that they were inadequate. I think you will understand contemporary philosophy better if you see, at least briefly, how he dealt with these problems.

1. The Mind-Body Problem

Descartes never got an answer to this question that he was satisfied with. He did recognize that the mind caused events in the body and that events in the body caused events in the mental realm. But how exactly was it supposed to work? He never felt he had resolved that. He studied anatomy and at least once observed the dissection of a cadaver to find out where the point of connection between the mind and the body might be. In the end he came up with the hypothesis that it must be in the pineal gland. This is a small pea-shaped gland at the base of the skull. Descartes thought that this must be where the mental forces and the physical forces come in contact with each other. This is not as crazy as it sounds; he gave a reasonable argument for thinking this. He noticed that everything in the brain has a twin on the opposite side of the brain. Because of the two hemispheres,

the anatomy apparently occurs in duplicate. But since all of our mental events occur in a unitary form, there must be some unified point in the brain where the two streams are brought together. The only single unduplicated organ he could find within the brain was the pineal gland, so he assumed that the point of contact between the mental and the physical must be the pineal gland.

(The urge to find the point of contact between the soul and the body is still not dead. I once debated a Nobel Prize-winning neurobiologist, Sir John Eccles, on British television. He argued that the soul attaches to the brain in the supplementary motor area. Here is his argument: If you ask a subject to perform a simple motor task such as touching each of his right fingers with his right thumb, the motor cortex shows a high level of activity. If you now ask the subject to just think the task but not actually perform it, the motor cortex shuts down but the supplementary motor area remains active. The idea that Eccles had is that when the soul alone is active it is stimulating the supplementary motor area.)

In a famous passage Descartes said we should not think of the mind as lodged in the body like a pilot in a ship, but we should really think that it is somehow suffused throughout the body. If I bump into something I do not observe my body banging into another object in a way that the pilot of a ship might observe the ship banging into the wharf, but rather I feel a pain in the part of my body that comes in contact with the object. Descartes says we should think of our mind as if it were somehow suffused throughout the body, but on his own account, that cannot be a correct thing to say, because mental substance cannot be spatially extended. It cannot be spread throughout the body because it cannot be spread out at all.