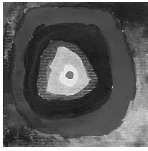


4



DESCARTES: KNOWLEDGE OF MIND AND MATTER

Introduction

As we saw in the last chapter, Descartes's goal was to develop and defend the new mathematical sciences. In pursuing this goal, Descartes was especially aware of the religious and philosophical implications it carried. Where Galileo defended the new science on the grounds of its experimental success, Descartes wished to demonstrate once and for all the correctness of its methods using principles drawn from "the light of reason." His intent was not merely to develop the science itself, but to create a complete philosophical system of which the physical sciences would form an integral part. The result of this effort produced a theory of knowledge, a theory of mind, and a theology, as well as a foundation for the physical sciences.

Descartes's Dualism

The theory of mind that Descartes constructed is a version of dualism, and is thus reminiscent in some ways of Plato's view. According to Descartes, the mind is an immaterial entity, entirely distinct from the physical body. Like Plato, Descartes argued that the characteristics of the mind are altogether different from those of material objects. According to Descartes, the nature of the physical world is described in entirely mathematical terms; its only real properties are those of shape, size, position, motion, and number. None of these characteristics belongs to the mind, which has only one attribute: conscious intelligence. The mind *thinks*, where thinking includes conscious experience, reason, and will. And just as the mind lacks any of the attributes of size, shape, and location, objects in the material world are utterly devoid of any thought or consciousness.

Although one of his primary goals was to create an account of mind that left room for the methods of the new science, Descartes did not determine the nature of the mind from scientific principles. Instead he developed an ingenious theory of knowledge wherein both the nature of

the mind *and* the mathematical character of the physical world could be deduced. According to Descartes, once we establish the real sources of knowledge and determine from that what can be known with absolute certainty, we will recognize that the only real properties of matter are those of pure mathematics, and we will see that the mind is entirely distinct from the physical body.

The Meditations

Our readings for this chapter and the next are from a small book entitled *Meditations on First Philosophy* that Descartes wrote in both Latin and French between 1638 and 1640. Descartes intended the *Meditations on First Philosophy* to provide a short and accessible presentation of his philosophy; in this little book all of the central tenets of his philosophical system are laid out and defended. It is written in the first person because his theory of knowledge begins with our reflective knowledge of our own mind, and it proceeds from there to deduce the difference between mind and body and the nature of each. The book is divided into six chapters, which he calls Meditations. The most important parts of the *Meditations* for our purposes, and hence those included in the readings, are the Second and Sixth Meditations and the first two paragraphs of the Third. We need to begin, however, with an outline of the First Meditation where the groundwork of his position is established.

The Search for Certainty

At the beginning of the First Meditation Descartes says that many of the principles upon which his beliefs have been based have turned out to be mistaken. He is thinking here largely of his early education in Aristotelian philosophy and science. He concludes from this that if secure knowledge of the world is possible, he must first reject all of his beliefs and start again from the very foundations. To this end he makes the following important assertion.

But reason now convinces me that I should withhold my assent from opinions which are not entirely certain and indubitable, no less than from those which are plainly false; so if I uncover any reason for doubt in each of them, that will be enough to reject them all.

The position he is taking here is that he cannot accept any of his opinions as genuine knowledge unless it is *impossible* for him to doubt their truth. This principle serves as the basis of his system, and, as we will see, it is the origin of his theory of mind and body. It is usually referred to as Descartes's "Method of Doubt."

Doubts about the Senses and the Intellect

The Method of Doubt provides Descartes with a way of undermining the Aristotelian system, for that system is based on the assumption that our thoughts and sensory perceptions are direct copies of the world around us. By showing that this confidence in the senses and the intellect does not survive the Method of Doubt, Descartes is free to establish his own system. Accordingly, Descartes spends most of the First Meditation casting doubt on the idea that things are necessarily the way they appear.

Clearly the sensory appearances of things are sometimes possible to doubt, for things are often not exactly as they appear. On the other hand he points out that some of what we perceive by the senses would seem to be *absurd* to doubt.

[F]or example, the fact that I am now here, seated by the fire, wearing a winter robe, holding this paper in my hands, and so on. And, in fact, how could I deny that these very hands and this whole body are mine . . .

Yet even what appears to be most evident is sometimes false. If I am dreaming, even the clearest of my perceptions are illusory, so we need a test to distinguish dreams from reality. But Descartes points out that there is no test that would make it *impossible* to doubt that we are dreaming, for any test we can use could in principle be part of the dream itself.

Nor can we have a simple, unreflective confidence in the use of reason, for even the simplest truths of the intellect (say, the belief that $2+3=5$) are drawn from certain basic operations of the mind: counting, calculating, drawing inferences, and so on. This means that the truths of reason are safe from doubt only if we cannot doubt the reliability of our powers of reasoning. How can we be absolutely sure of our powers of reason? Suppose, for example, that you made the *same* mistake every time you calculated something. No matter how many times you checked your conclusion, you would still miss your error.

Thought Experiments

Descartes ends the First Meditation with what we call nowadays a **thought experiment**. Because thought experiments will play a central role in our readings beyond this chapter, it is worthwhile to look at what they are intended to do.

In simplest terms a thought experiment is simply a fictional story that is used to test and challenge the ways we think about the world. The idea of using fiction in this way is familiar from the science fiction genre. People in science fiction stories are constantly forced into situations that violate our expectations, and this forces us to re-examine our ways of thinking about things.

Exactly what thought experiments can prove is a matter of debate. Some argue that, unlike real experiments, thought experiments do not reveal anything about the world. They only show us more vividly the implications of our own ways of thinking. (Daniel Dennett, whom we will read in Chapter Eleven, calls them “intuition pumps.”) Others contend that they show us what *could* be true, even if what they describe isn’t actually true. And facts about what could be true, they argue, can form the basis for substantial conclusions about the nature of the world.

The Evil Demon

Descartes’s thought experiment involves the possibility that all of our perceptions and thoughts about the world might be false. He does this by asking us to consider the possibility of an evil demon who has complete control of our mind. Let’s follow Descartes’s reasoning here. Imagine an evil demon, infinitely cunning and powerful, and imagine that the demon is wholly bent on deceiving you into false beliefs. If it is possible for you to be mistaken about anything at all then the demon will manage it. The demon has control of your memory, your sensory perceptions, and your faculty of reasoning, so that everything you see, remember, or deduce is simply an illusion the demon creates.

Such a description gives an ideal way to identify those beliefs that it is impossible to doubt: any belief you would continue to hold *while imagining that you are being deceived by an evil demon* is one of which you must be absolutely certain. Accordingly, Descartes ends the First Meditation

with the conclusion that he will accept as a foundation for knowledge *only* those beliefs that he would continue to hold even while under the power of such an evil demon.

"I think, therefore I am"

The Second Meditation begins with a reiteration of the evil demon scenario, and Descartes asks what beliefs could possibly survive such an all-encompassing doubt. It seems that the only beliefs that would meet this requirement are those that must necessarily be true simply because we believe them to be true. Descartes points out that the statement 'I exist' is just such a belief. It is always impossible to falsely assert 'I exist.' This gives him his first principle and foundation for knowledge:

I am, I exist is necessarily true every time I say it or conceive of it in my mind.

In a different book, he expresses the same idea with his famous line, "I think, therefore I am." Notice, however, that only the *first-person* belief 'I exist' is impossible to doubt. It is possible to doubt that *other* people exist. This is the reason the Meditations are written in the first person: all knowledge begins with knowledge of oneself.

"I exist as a thinking thing"

The next step in Descartes's argument is the claim that knowledge of one's own existence, when understood properly, leads directly to other knowledge. In order to recognize myself as existing I must know something about what I am. Accordingly Descartes turns next to the question what the word '*I*' refers to in the quotation above.

Keep in mind that Descartes is still searching for beliefs that are absolutely certain. The inference from his own existence to any further knowledge must pass the evil demon test—he can only draw the inference if he would be willing to do so in the presence of an evil demon. Accordingly, Descartes spends a few paragraphs rejecting many of the beliefs about himself he usually accepts: he believes himself to have a certain physical body, and there are many events he remembers as part of his life history. All of these things could be the illusions of an evil demon. So knowledge of his own existence does not come from knowledge of any of these things, even if they are all true.

In light of this, Descartes argues that his knowledge of his own existence is based only on his awareness of his own *thinking*. The statement, 'I exist,' must be true as long as I *think* that it is. He says,

What about thinking? Here I discover something: thinking does exist. This is the only thing which cannot be detached from me. *I am, I exist*—that is certain. But for how long? Surely for as long as I am thinking.

This is true, he maintains, even if all his sensory perceptions and memories are entirely false. That the perceptions and memories themselves exist is still true. Hence, knowledge of one's own individual existence is derived from nothing more than the awareness of one's own thought.

To this conclusion he adds that in order to know that he thinks, he must also have some conception of what thinking is. So this adds another small piece of knowledge. He asks the question, "What is a thing that thinks?" The answer is that a thing that thinks is a thing that doubts,

understands, affirms, denies, wills, refuses, and also imagines and senses. The existence of each of these various states of mind, he claims, is directly evident whenever we reflect on our own conscious experience.

Thought as Consciousness

At the end of his list of what thinking includes he makes the following important comment:

Finally, it is the same I that feels, or notices corporeal things, apparently through the senses: for example, I now see light, hear noise, and feel heat. But these are false, for I am asleep. Still, I certainly seem to see, hear, and grow warm—and this cannot be false. Strictly speaking, this is what in me is called sense perception and, taken in this precise meaning, it is nothing other than thinking.

In the first sentence of this quotation Descartes is pointing out that he has included sense perception on the list of different kinds of thinking. In the third sentence he admits that these perceptions may be illusions. But, he says, he is nonetheless aware of the perception itself; that is, of his conscious experience of seeming to perceive something. Even if his perceptions are illusory, he is still aware that he has them. In the last sentence of the passage, he adds that this experience of perception is a form of thinking.

In this paragraph Descartes is constructing an altogether new understanding of **thought** or thinking.¹ Normally, sensing is thought of as an activity that necessarily involves the bodily organs—you can't perceive without organs to perceive with. But here Descartes has *redefined* sensing as an activity that one cannot doubt even while doubting the existence of the physical body. So this conception of sensing carries no assumption that the physical body exists. And understood in this new way, sensing is described as an aspect of **thinking**.

In these two steps Descartes has introduced a new conception of thinking as whatever we *cannot doubt* when we reflect on our own internal experience. The implication of this is that the mind itself is here given an entirely new definition. The mind is understood to be that part of us that thinks, and thinking is defined in terms of the contents of our conscious experience. In this way Descartes introduces a new idea of the mind as a center of consciousness.

Taking advantage of this new definition of the mind, Descartes concludes that our awareness of our own mind forms the foundation for all of our knowledge. Even if all of our thoughts and perceptions are false, and the world is not as we perceive it or remember it, the fact that we are having those thoughts and those perceptions is impossible to doubt. According to Descartes, the nature and content of the mind is directly evident to us. We cannot be mistaken about the immediate contents of our own thoughts.

Knowledge of Physical Objects

Descartes's arguments so far have given him the material he needs to draw striking conclusions about the nature of the mind. But in order to complete his argument for dualism, Descartes also has to establish certain claims about the physical world. Beginning with the line "From these thoughts, I begin to understand somewhat better what I am..." Descartes re-examines the basis for our beliefs about the physical world. Aristotle's system is based on the idea that the nature of

the physical world is revealed to us directly by the senses. Accordingly, Descartes's first project is to undermine this belief.

He begins by admitting that the conclusion he has reached about the mind conflicts with our ordinary view of things. Common sense suggests that our knowledge of ordinary physical objects is more immediate and more certain than our knowledge of this mysterious thing, the mind. So he attempts to confirm his conclusion by answering the question, 'How *do* we have knowledge of ordinary physical objects?'

In his answer to the question Descartes implicitly assumes that there are three distinct faculties of the mind by which we might have knowledge of physical objects: the senses, the imagination, and the intellect. He offers an argument that has the following form.

1. Knowledge of physical objects is not obtained through the senses.
2. Nor is it obtained through the imagination.
Hence it is obtained through the intellect.

Let's look first at his argument for the two premises, and then at what he intends in his conclusion.

The "Piece of Wax" Argument

The argument for the first premise is based on a claim that a physical object is distinct from any of the sensible qualities (color, shape, odor, and so on) that it has at any particular time. But our senses perceive only those qualities. Therefore, what we perceive through the senses is not the object itself but only certain qualities it happens to have.

The reasoning here is illustrated by an example of an ordinary physical object: a piece of wax. As the wax is heated, every quality perceived by the senses changes—its color, its taste, its fragrance, and its size and shape. Nothing sensible remains of the piece of wax before it was heated. *Yet it remains the same object.* The piece of wax didn't vanish while a new object appeared in its place.² The same object simply changed in its appearance. Hence the object that we recognize as the piece of wax cannot be anything perceived by the senses.

In his argument for the second premise Descartes considers the possibility that our idea of the piece of wax is formed through our ability to *imagine* all the particular sensible qualities it may have over time. On this hypothesis, the reason we recognize the changed object as the same piece of wax is because our idea of it includes all of the changes it might undergo. So our recognition of the object would be a function of the imagination, not the senses. But Descartes rejects this on the grounds that an object may have an infinite number of particular sensible qualities. Think, for example, of how many shapes a piece of wax can have. He can only imagine a finite number of these qualities, and so he cannot possibly have formed his idea of the object through the imagination.

Perception Involves Judgment

Because it is not through either the senses or the imagination, our knowledge of physical objects can only be through the intellect. This is similar to an idea that we have already encountered in Aristotle. Recall the question raised in Chapter Two of how we are capable of perceiving a horse from our awareness of a collection of sensible qualities. The answer Aristotle gives is that our mind is capable of taking on the forms or essences of things. In his piece-of-wax argument Descartes is

making the related point (applied to a piece of wax rather than a horse) that perception cannot consist merely of the perception of sensible qualities. What answer does Descartes give, then, to Aristotle's question?

Near the end of the piece-of-wax argument he says our perception of the piece of wax is a case of "mental inspection." But what does he mean by that? A bit further on he describes the intellect as the "faculty of judgment." When we perceive an object like the piece of wax, there is an act of judgment involved in our perception. I don't *see* the piece of wax—I *infer* that it is there from appearances provided by my senses.

Descartes admits, however, that his claim that perception involves the intellect conflicts with how we *seem* to have knowledge of physical objects. We are not aware of any acts of judgment or inference in our ordinary perception of the world. But Descartes points out that we often make judgments without noticing them, and he gives the following example. He looks out the window, and it seems that he sees men in the street; but on closer inspection he notices that he does not actually see any men but only hats and coats, from which he *judges* that it is men that he sees. There was an act of judgment in this perception, but it went unnoticed. So he concludes that:

And thus what I thought I was seeing with my eyes I understand only with my faculty of judgment, which is in my mind.

The Idea of Matter

But this isn't the whole story. Judgment always involves some kind of conclusion. What exactly is it that I infer when I perceive something like the piece of wax? The answer to this puzzle lies in a comment that Descartes makes in the middle of the piece-of-wax argument. In asking what his idea of the piece of wax is, he says,

Perhaps what I now think is as follows: the wax itself was not really that sweetness of honey, that fragrance of flowers, that white color, or that shape and sound, but a body which a little earlier was perceptible to me in those forms, but which is now perceptible in different ones. But what exactly is it that I am imagining in this way? Let us consider that point and, *by removing those things which do not belong to the wax*, see what is left over. It is clear that nothing remains, other than something extended, flexible, and changeable. [emphasis ours]

In the highlighted phrase we have a version of Galileo's argument from conceivability whereby Galileo concludes that *matter* has no other qualities than shape, size, and motion. Descartes is asserting the same idea. By "something extended," he means something extended in space, that is, something that has a size, shape, and location.

So the idea of the piece of wax that we have in our mind is just the idea of something that possesses a certain size and shape, and that is perceptible by the organs of sense. When we perceive an object like the wax, we form a judgment to the effect that there is before us something extended in space that produces certain sensations in our mind.

It is important to see just how it is that this idea is involved in the act of perception. According to Descartes, the common opinion that our ideas and experiences of the world come directly from the senses is mistaken. Without the activity of the intellect, he believes, our sensations

would not provide us with a coherent, structured perception of an enduring physical world. The idea of matter as extended in space does not come to us *from* our sensory experience; rather it is an idea supplied by the mind that we *read into* the sensations supplied by our sensory organs. This, I believe, is what Descartes means when he says that the perception of the wax is an act of “purely mental inspection.” In a manner reminiscent of Plato, Descartes’s view is that, although the senses provide us with a certain amount of confused information, the conceptual framework needed to make sense of that information is provided by the intellect alone.

Descartes’s Rule

The idea that perception of the physical world involves an act of “mental inspection” raises a problem: if our conception of physical objects is supplied by the mind, how can we assure ourselves that this conception is correct? Descartes turns to this problem in the Third Meditation.

Near the beginning of the Third Meditation, Descartes says that in the previous Meditation he has already discovered a rule that he can use to acquire knowledge about the physical world. He goes back to the first belief established in the Second Meditation: “I am, I exist—that is certain. But for how long? For as long as I am thinking.” Given that this statement is beyond doubt, he asks what *reason* he had for accepting it as such. His answer is that, “In this first item of knowledge there is simply a clear and distinct perception of what I am asserting. . . .” This thought suggests to him the following rule:

[A]ll those things I perceive very clearly and very distinctly are true.

What does he mean by this? Recall that in the Second Meditation, when he first establishes the belief ‘I exist,’ he discovers that this knowledge is based solely on the existence of his own conscious thought. It is only after he has clearly and distinctly perceived the *precise content* of that belief that he sees that it must be true. So the idea he draws from this is as follows. There are certain ideas and thoughts that occur in the conscious mind. Some of these thoughts and ideas are clear and distinct; others are confused and vague. Our beliefs are often false when they are based on confused and vague ideas and impressions. But our beliefs are always true when they are based on clear and distinct ideas and impressions. Because he has relied on this rule in establishing the certainty of his own existence, he now maintains that the rule *must* be acceptable as a means of acquiring knowledge, or else he must give up his claim to know that he exists, which would be absurd.

The Existence of God

In the remainder of the Third Meditation Descartes argues that we can demonstrate the truth of this rule by proving the existence of a benevolent and powerful God. Once this has been proven, we can see that such a God would not create us in such a way that our clearest beliefs can be mistaken.

This argument gives us a further clue to what Descartes means by “clear and distinct ideas.” In the Sixth Meditation, while discussing what can be known of physical objects, he makes the following claim:

But regarding other material things which are either merely particular, for example that the sun is of such and such a magnitude and shape, and so on, or less clearly understood, for

example light, sound, pain, and things like that, although these may be extremely doubtful and uncertain, nonetheless, because of the very fact that God is not a deceiver and thus it is impossible for there to be any falsity in my opinions which I cannot correct with another faculty God has given me, I have the sure hope that I can reach the truth even in these matters.

The idea expressed here is that we will not fall into errors that we are incapable of correcting. It follows that as long as we do everything that is within our power to avoid error, our beliefs will always be true. A clear and distinct idea, understood in this light, is one that appears to be true even after it has been examined critically with every faculty of reason and analysis we possess.

Descartes's critics have maintained that proving the existence of God in order to support his rule is circular. For one of the premises in his argument that God exists, they maintain, is the rule itself, so that a person will only accept the premises as true if they already accept the conclusion. To pursue this problem is beyond our scope here, so I will pass it by and look instead at what Descartes does with his rule once it is established.

Using the Rule

The Sixth Meditation is the culmination of the book, and Descartes declares two objectives here: to establish the existence and nature of physical objects, and to demonstrate that the mind and the physical body are two distinct entities. In the Second Meditation he introduced the idea of matter as something extended in space. Descartes now argues that the spatial properties of size, shape, and motion are the properties of matter of which we can form a clear and distinct idea. He says,

It remains for me to examine whether material things exist. At the moment, I do, in fact, know that they could exist, at least insofar as they are objects of pure mathematics, since I perceive them *clearly and distinctly*. [emphasis ours]

The claim here is that the only clear and distinct, and hence truly accurate, conception he has of physical objects is that of something extended in space, and thus possessing size, shape, position, and motion. This is because the idea of spatial extension is based on the sciences of arithmetic and geometry, and the principles of these sciences are all clear and distinct.

Descartes admits, however, that there are other qualities commonly attached to the idea we have of material objects: colors, sounds, scents, and so on. And all of these are derived from our sensory perceptions. How are these sensory perceptions related to the world of material objects? To answer this question Descartes turns to the relationship between mind and matter. This topic is the subject of the next chapter.

Notes

1. This point is made very effectively by Gareth Matthews in "Consciousness and Life," *Philosophy* 52 (1977): pp. 13–26.
2. It is sometimes assumed that Descartes means that the object remains a piece of wax rather than some other kind of object. But his point doesn't concern kinds of physical objects. It is that the object has not been replaced by a different one.

RENÉ DESCARTES

Selections from *Meditations on First Philosophy**

SECOND MEDITATION

Concerning the Nature of the Human Mind and the Fact that It Is Easier to Know than the Body

Yesterday's meditation threw me into so many doubts that I can no longer forget them or even see how they might be resolved. Just as if I had suddenly fallen into a deep eddying current, I am hurled into such confusion that I am unable to set my feet on the bottom or swim to the surface. However, I will struggle along and try once again [to follow] the same path I started on yesterday—that is, I will reject everything which admits of the slightest doubt, just as if I had discovered it was completely false, and I will proceed further in this way, until I find something certain, or at least, if I do nothing else, until I know for certain that there is nothing certain. In order to shift the entire earth from its location, Archimedes asked for nothing but a fixed and immovable point. So I, too, ought to hope for great things if I can discover something, no matter how small, which is certain and immovable.

Therefore, I assume that everything I see is false. I believe that none of those things my lying memory represents has ever existed, that I have no senses at all, and that body, shape, extension, motion, and location are chimeras. What, then, will be true? Perhaps this one

thing: there is nothing certain.

But how do I know that there exists nothing other than the items I just listed, about which one could not entertain the slightest momentary doubt? Is there not some God, by whatever name I call him, who places these very thoughts inside me? But why would I think this, since I myself could perhaps have produced them? So am I then not at least something? But I have already denied that I have senses and a body. Still, I am puzzled, for what follows from this? Am I so bound up with my body and my senses that I cannot exist without them? But I have convinced myself that there is nothing at all in the universe—no sky, no earth, no minds, no bodies. So then, is it the case that I, too, do not exist? No, not at all: if I persuaded myself of something, then I certainly existed. But there is some kind of deceiver, supremely powerful and supremely cunning, who is constantly and intentionally deceiving me. But then, if he is deceiving me, there again is no doubt that I exist—for that very reason. Let him trick me as much as he can, he will never succeed in making me nothing, as long as I am aware that I am something. And so, after thinking all these things through in great detail, I must finally settle on this proposition: the statement *I am, I exist* is necessarily true every time I say it or conceive of it in my mind.

But I do yet understand enough about what this *I* is, which now necessarily exists. Thus, I must be careful I do not perhaps unconsciously substitute something else in place of this *I* and in that way make a mistake even here, in the conception which I assert is the most certain

* Eds.: This translation is based upon the first Latin edition of Descartes's *Meditations* (1641). Words in square brackets are insertions and additions from the first French edition.

and most evident of all. For that reason, I will now reconsider what I once believed myself to be, before I fell into this [present] way of thinking. Then I will remove from that whatever could, in the slightest way, be weakened by the reasoning I have [just] brought to bear, so that, in doing this, by the end I will be left only with what is absolutely certain and immovable.

What then did I believe I was before? Naturally, I thought I was a human being. But what is a human being? Shall I say a *rational animal*? No. For then I would have to ask what an *animal* is and what *rational* means, and thus from a single question I would fall into several greater difficulties. And at the moment I do not have so much leisure time that I wish to squander it with subtleties of this sort. Instead I would prefer here to attend to what used to come into my mind quite naturally and spontaneously in earlier days every time I thought about what I was. The first thought, of course, was that I had a face, hands, arms, and this entire mechanism of limbs, the kind one sees on a corpse, and this I designated by the name *body*. Then it occurred to me that I ate and drank, walked, felt, and thought. These actions I assigned to the *soul*. But I did not reflect on what this *soul* might be, or else I imagined it as some kind of attenuated substance, like wind, or fire, or aether, spread all through my denser parts. However, I had no doubts at all about my body—I thought I had a clear knowledge of its nature. Perhaps if I had attempted to describe it using the mental conception I used to hold, I would have explained it as follows: By a *body* I understand everything that is appropriately bound together in a certain form and confined to a place; it fills a certain space in such a way as to exclude from that space every other body; it can be perceived by touch, sight, hearing, taste, or smell, and can also be moved in various ways, not, indeed, by itself, but by something else which makes contact with it. For I judged that possessing

the power of self-movement, like the ability to perceive things or to think, did not pertain at all to the nature of body. Quite the opposite in fact, so that when I found out that faculties rather similar to these were present in certain bodies, I was astonished.

But what [am I] now, when I assume that there is some extremely powerful and, if I may be permitted to speak like this, malevolent and deceiving being who is deliberately using all his power to trick me? Can I affirm that I possess even the least of all those things which I have just described as pertaining to the nature of body? I direct my attention [to this], think [about it], and turn [the question] over in my mind. Nothing comes to me. It is tedious and useless to go over the same things once again. What, then, of those things I used to attribute to the soul, like eating, drinking, or walking? But given that now I do not possess a body, these are nothing but imaginary figments. What about sense perception? This, too, surely does not occur without the body. And in sleep I have apparently sensed many objects which I later noticed I had not [truly] perceived. What about thinking? Here I discover something: thinking does exist. This is the only thing which cannot be detached from me. *I am, I exist*—that is certain. But for how long? Surely for as long as I am thinking. For it could perhaps be the case that, if I were to abandon thinking altogether, then in that moment I would completely cease to be. At this point I am not agreeing to anything except what is necessarily true. Therefore, strictly speaking, I am merely a thinking thing, that is, a mind or spirit, or understanding, or reason—words whose significance I did not realize before. However, I am something real, and I truly exist. But what kind of thing? As I have said, a thing that thinks.

And what else besides? I will let my imagination roam. I am not that interconnection of limbs we call a human body. Nor am I even

some attenuated air which filters through those limbs—wind, or fire, or vapor, or breath, or anything I picture to myself. For I have assumed those things were nothing. Let this assumption hold. Nonetheless, I am still something. Perhaps it could be the case that these very things which I assume are nothing, because they are unknown to me, are truly no different from that *I* which I do recognize. I am not sure, and I will not dispute this point right now. I can render judgment only on those things which are known to me: I know that I exist. I am asking what this *I* is—the thing I know. It is very certain that knowledge of this *I*, precisely defined like this, does not depend on things whose existence I as yet know nothing about and therefore on any of those things I conjure up in my imagination. And this phrase *conjure up* warns me of my mistake, for I would truly be conjuring something up if I imagined myself to be something, since imagining is nothing other than contemplating the form or the image of a physical thing. But now I know for certain that I exist and, at the same time, that it is possible for all those images and, in general, whatever relates to the nature of body to be nothing but dreams [or chimeras]. Having noticed this, it seems no less foolish for me to say “I will let my imagination work, so that I may recognize more clearly what I am” than if I were to state, “Now I am indeed awake, and I see some truth, but because I do yet not see it with sufficient clarity, I will quite deliberately go to sleep, so that in my dreams I will get a truer and more distinct picture of it.” Therefore, I realize that none of those things which I can understand with the aid of my imagination is pertinent to this idea I possess about myself and that I must be extremely careful to summon my mind back from such things, so that it may perceive its own nature with the utmost clarity, on its own.

But what then am I? A thinking thing. What is this? It is surely something that doubts,

understands, affirms, denies, is willing, is unwilling, and also imagines and perceives.

This is certainly not an insubstantial list, if all [these] things belong to me. But why should they not? Surely I am the same I who now doubts almost everything, yet understands some things, who affirms that this one thing is true, denies all the rest, desires to know more, does not wish to be deceived, imagines many things, even against its will, and also notices many things which seem to come from the senses? Even if I am always asleep and even if the one who created me is also doing all he can to deceive me, what is there among all these things which is not just as true as the fact that I exist? Is there something there that I could say is separate from me? For it is so evident that I am the one who doubts, understands, and wills, that I cannot think of anything which might explain the matter more clearly. But obviously it is the same I that imagines, for although it may well be case, as I have earlier assumed, that nothing I directly imagine is true, nevertheless, the power of imagining really exists and forms part of my thinking. Finally, it is the same I that feels, or notices corporeal things, apparently through the senses: for example, I now see light, hear noise, and feel heat. But these are false, for I am asleep. Still, I certainly seem to see, hear, and grow warm—and this cannot be false. Strictly speaking, this is what in me is called sense perception and, taken in this precise meaning, it is nothing other than thinking.

From these thoughts, I begin to understand somewhat better what I am. However, it still appears that I cannot prevent myself from thinking that corporeal things, whose images are formed by thought and which the senses themselves investigate, are much more distinctly known than that obscure part of me, the *I*, which is not something I can imagine, even though it is really strange that I have a clearer sense of those things whose existence I know

is doubtful, unknown, and alien to me than I do of something which is true and known, in a word, of my own self. But I realize what the trouble is. My mind loves to wander and is not yet allowing itself to be confined within the limits of the truth. All right, then, let us at this point for once give it completely free rein, so that a little later on, when the time comes to pull back, it will consent to be controlled more easily.

Let us consider those things we commonly believe we understand most distinctly of all, that is, the bodies we touch and see—*not*, indeed, bodies in general, for those general perceptions tend to be somewhat more confusing, but rather one body in particular. For example, let us take this [piece of] beeswax. It was collected from the hive very recently and has not yet lost all the sweetness of its honey. It [still] retains some of the scent of the flowers from which it was gathered. Its color, shape, and size are evident. It is hard, cold, and easy to handle. If you strike it with your finger, it will give off a sound. In short, everything we require to be able to recognize a body as distinctly as possible appears to be present. But watch. While I am speaking, I bring the wax over to the fire. What is left of its taste is removed, its smell disappears, its color changes, its shape is destroyed, its size increases, it turns to liquid, and it gets hot. I can hardly touch it. And now, if you strike it, it emits no sound. After [these changes], is what remains the same wax? We must concede that it is. No one denies this; no one thinks otherwise. What then was in [this piece of wax] that I understood so distinctly? Certainly nothing I apprehended with my senses, since all [those things] associated with taste, odor, vision, touch, and sound have now changed. [But] the wax remains.

Perhaps what I now think is as follows: the wax itself was not really that sweetness of honey, that fragrance of flowers, that white color, or that shape and sound, but a body

which a little earlier was perceptible to me in those forms, but which is now [perceptible] in different ones. But what exactly is it that I am imagining in this way? Let us consider that point and, by removing those things which do not belong to the wax, see what is left over. It is clear that nothing [remains], other than something extended, flexible, and changeable. But what, in fact, do *flexible* and *changeable* mean? Do these words mean that I imagine that this wax can change from a round shape to a square one or from [something square] to something triangular? No, that is not it at all. For I understand that the wax has the capacity for innumerable changes of this kind, and yet I am not able to run through these innumerable changes by using my imagination. Therefore, this conception [I have of the wax] is not produced by the faculty of imagination. What about extension? Is not the extension of the wax also unknown? For it becomes greater when the wax melts, greater [still] when it boils, and once again [even] greater, if the heat is increased. And I would not be judging correctly what wax is if I did not believe that it could also be extended in various other ways, more than I could ever grasp in my imagination. Therefore, I am forced to admit that my imagination has no idea at all what this wax is and that I perceive it only with my mind. I am talking about this [piece of] wax in particular, for the point is even clearer about wax in general. But what is this wax which can be perceived only by the mind? It must be the same as the wax I see, touch, and imagine—in short, the same wax I thought it was from the beginning. But we should note that the perception of it is not a matter of sight, or touch, or imagination, and never was, even though that seemed to be the case earlier, but simply of mental inspection, which could be either imperfect and confused as it was before, or clear and distinct as it is now, depending on the lesser or greater degree

of attention I bring to bear on those things out of which the wax is composed.

However, now I am amazed at how my mind is [weak and] prone to error. For although I am considering these things silently within myself, without speaking aloud, I still get stuck on the words themselves and am almost deceived by the very nature of the way we speak. For if the wax is there [in front of us], we say that we see the wax itself, not that we judge it to be there from the color or shape. From that I could immediately conclude that I recognized the wax thanks to the vision in my eyes, and not simply by mental inspection. But by analogy, suppose I happen to glance out of the window at people crossing the street; in normal speech I also say I see the people themselves, just as I do with the wax. But what am I really seeing other than hats and coats, which could be concealing automatons underneath? However, I judge that they are people. And thus what I thought I was seeing with my eyes I understand only with my faculty of judgment, which is in my mind.

But someone who wishes [to elevate] his knowledge above the common level should be ashamed to have based his doubts in the forms of speech which ordinary people use, and so we should move on to consider next whether my perception of what wax is was more perfect and more evident when I first perceived it and believed I knew it by my external senses, or at least by my so-called *common* sense,* in other words, by the power of imagination, or whether it is more perfect now, after I have investigated more carefully both what wax is and how it can be known. To entertain doubts about this matter would certainly be silly. For in my first perception of the wax what was distinct? What

did I notice there that any animal might not be capable of capturing? But when I distinguish the wax from its external forms and look at it as something naked, as if I had stripped off its clothing, even though there could still be some error in my judgment, it is certain that I could not perceive it in this way without a human mind.

But what am I to say about this mind itself, in other words, about myself? For up to this point I am not admitting there is anything in me except mind. What, I say, is the *I* that seems to perceive this wax so distinctly? Do I not know myself not only much more truly and certainly, but also much more distinctly and clearly than I know the wax? For if I judge that the wax exists from the fact that I see it, then from the very fact that I see the wax it certainly follows much more clearly that I myself also exist. For it could be that what I see is not really wax. It could be the case that I do not have eyes at all with which to see anything. But when I see or think I see (at the moment I am not differentiating between these two), it is completely impossible that I, the one doing the thinking, am not something. For similar reasons, if I judge that the wax exists from the fact that I am touching it, the same conclusion follows once again, namely, that I exist. The result is clearly the same if [my judgment rests] on the fact that I imagine the wax or on any other reason at all. But these observations I have made about the wax can be applied to all other things located outside of me. Furthermore, if my perception of the wax seemed more distinct after it was drawn to my attention, not merely by sight or touch, but by several [other] causes, I must concede that I now understand myself much more distinctly, since all of those same reasons capable of assisting my perception either of the wax or of any other body whatsoever are even better proofs of the nature of my mind! However, over and above this, there are so many other things

* Eds.: He does not mean "common sense" as we use it in English. This is a term from Aristotle, which refers to the perception of things that are common to several senses. For example, size, shape, location, movement, etc., can be perceived by sight, hearing, and touch.

in the mind itself which can provide a more distinct conception of its [nature] that it hardly seems worthwhile to review those features of corporeal things which might contribute to it.

And behold—I have all on my own finally returned to the place where I wanted to be. For since I am now aware that bodies themselves are not properly perceived by the senses or by the faculty of imagination, but only by the intellect, and are not perceived because they are touched or seen, but only because they are understood, I realize this obvious point: there is nothing I can perceive more easily or more clearly than my own mind. But because it is impossible to rid oneself so quickly of an opinion one has long been accustomed to hold, I would like to pause here, in order to impress this new knowledge more deeply on my memory with a prolonged meditation.

THIRD MEDITATION Concerning God and the Fact that He Exists

Now I will close my eyes, stop up my ears, and withdraw all my senses. I will even blot out from my thinking all images of corporeal things, or else, since this is hardly possible, I will dismiss them as empty and false images of nothing at all, and by talking only to myself and looking more deeply within, I will attempt, little by little, to acquire a greater knowledge of and more familiarity with myself. I am a thinking thing—in other words, something that doubts, affirms, denies, knows a few things, is ignorant of many things, wills, refuses, and also imagines and feels. For, as I have pointed out earlier, although those things which I sense or imagine outside of myself are perhaps nothing, nevertheless, I am certain that the thought processes I call sense experience and imagination, given that they are only certain modes of thinking, do exist within me.

In these few words, I have reviewed everything I truly know, or at least [everything] that, up to this point, I was aware I knew. Now I will look around more diligently, in case there are perhaps other things in me that I have not yet considered. I am certain that I am a thinking thing. But if that is the case, do I not then also know what is required for me to be certain about something? There is, to be sure, nothing in this first knowledge other than a certain clear and distinct perception of what I am affirming, and obviously this would not be enough for me to be certain about the truth of the matter, if it could ever happen that something I perceived just as clearly and distinctly was false. And now it seems to me that now I can propose the following general rule: all those things I perceive very clearly and very distinctly are true.

[...]

SIXTH MEDITATION Concerning the Existence of Material Things and the Real Distinction between Mind and Body

It remains for me to examine whether material things exist. At the moment, I do, in fact, know that they *could* exist, at least insofar as they are objects of pure mathematics, since I perceive them clearly and distinctly. For there is no doubt that God is capable of producing everything which I am capable of perceiving in this way, and I have never judged that there is anything He cannot create, except in those cases where there might be a contradiction in my clear perception of it. Moreover, from my faculty of imagination, which I have learned by experience I use when I turn my attention to material substances, it seems to follow that they exist. For when I consider carefully what the imagination is, it seems nothing other than a certain application of my cognitive faculty to

an object which is immediately present to it and which therefore exists.

In order to clarify this matter fully, I will first examine the difference between imagination and pure understanding. For example, when I imagine a triangle, not only do I understand that it is a shape composed of three lines, but at the same time I also see those three lines as if they were, so to speak, present to my mind's eye. This is what I call imagining. However, if I wish to think about a chiliagon, even though I understand that it is a figure consisting of one thousand sides just as well as I understand that a triangle is a figure consisting of three sides, I do not imagine those thousand sides in the same way, nor do I see [them], as it were, in front of me. And although, thanks to my habit of always imagining something whenever I think of a corporeal substance, it may happen that [in thinking of a chiliagon] I create for myself a confused picture of some shape, nevertheless, it is obviously not a chiliagon, because it is no different from the shape I would also picture to myself if I were thinking of a myriagon or of any other figure with many sides. And that shape is no help at all in recognizing those properties which distinguish the chiliagon from other polygons. However, if it is a question of a pentagon, I can certainly understand its shape just as [well as] I can the shape of a chiliagon, without the assistance of my imagination. But, of course, I can also imagine the pentagon by applying my mind's eye to its five sides and to the area they contain. From this I clearly recognize that, in order to imagine things, I need a certain special mental effort that I do not use to understand them, and this new mental effort reveals clearly the difference between imagination and pure understanding.

Furthermore, I notice that this power of imagining, which exists within me, insofar as it differs from the power of understanding, is not a necessary part of my own essence, that is, of

my mind. For even if I did not have it, I would still undoubtedly remain the same person I am now. From this it would seem to follow that my imagination depends upon something different from [my mind]. I understand the following easily enough: If a certain body—my body—exists, and my mind is connected to it in such a way that whenever my mind so wishes it can direct itself (so to speak) to examine that body, then thanks to this particular body it would be possible for me to imagine corporeal things. Thus, the only difference between imagination and pure understanding would be this: the mind, while it is understanding, in some way turns its attention to itself and considers one of the ideas present in itself, but when it is imagining, it turns its attention to the body and sees something in it which conforms to an idea which it has either conceived by itself or perceived with the senses. I readily understand, as I have said, that the imagination *could* be formed in this way, if the body exists, and because I can think of no other equally convenient way of explaining it, I infer from this that the body probably exists—but only probably—and although I am looking into everything carefully, I still do not yet see how from this distinct idea of corporeal nature which I find in my imagination I can derive any argument which necessarily concludes that anything corporeal exists.

However, I am in the habit of imagining many things apart from the corporeal nature which is the object of study in pure mathematics, such as colors, sounds, smells, pain, and things like that, although not so distinctly. And since I perceive these better with my senses, through which, with the help of my memory, they appear to have reached my imagination, then in order to deal with them in a more appropriate manner, I ought to consider the senses at the same time as well and see whether those things which I perceive by this method of

thinking, which I call sensation, will enable me to establish some credible argument to prove the existence of corporeal things.

First of all, I will review in my mind the things that I previously believed to be true, because I perceived them with my senses, along with the reasons for those beliefs. Then I will also assess the reasons why I later called them into doubt. And finally I will consider what I ought to believe about them now.

To begin with, then, I sensed that I had a head, hands, feet, and other limbs making up that body which I looked on as if it were a part of me or perhaps even my totality. I sensed that this body moved around among many other bodies which could affect it in different ways, either agreeably or disagreeably. I judged which ones were agreeable by a certain feeling of pleasure and which ones were disagreeable by a feeling of pain. Apart from pain and pleasure, I also felt inside me sensations of hunger, thirst, and other appetites of this kind, as well as certain physical inclinations towards joy, sadness, anger, and other similar emotions. And outside myself, besides the extension, shapes, and motions of bodies, I also had sensations in them of hardness, heat, and other tactile qualities and, in addition, of light, colors, smells, tastes, and sounds. From the variety of these, I distinguished sky, land, sea, and other bodies, one after another. And because of the ideas of all those qualities which presented themselves to my thinking, although I kept sensing these as merely my own personal and immediate ideas, I reasonably believed that I was perceiving certain objects entirely different from my thinking, that is, bodies from which these ideas proceeded. For experience taught me that these ideas reached me without my consent, so that I was unable to sense any object, even if I wanted to, unless it was present to my organs of sense, and I was unable not to sense it when it was present. And since the ideas I perceived with

my senses were much more vivid, lively, and sharp, and even, in their own way, more distinct than any of those which I myself intentionally and deliberately shaped by meditation or which I noticed impressed on my memory, it did not seem possible that they could have proceeded from myself. Thus, the only conclusion left was that they had come from some other things. Because I had no conception of these objects other than what I derived from those ideas themselves, the only thought my mind could entertain was that [the objects] were similar to [the ideas they produced]. And since I also remembered that earlier I had used my senses rather than my reason and realized that the ideas which I myself formed were not as vivid, lively, and sharp as those which I perceived with my senses and that most of the former were composed of parts of the latter, I easily convinced myself that I had nothing at all in my intellect which I had not previously had in my senses. I also maintained, not without reason, that this body, which, by some special right, I called my own, belonged to me more than any other object, for I could never separate myself from it, as I could from other [bodies], I felt every appetite and emotion in it and because of it, and finally, I noticed pain and the titillation of pleasure in its parts, but not in any objects placed outside it. But why a certain strange sadness of spirit follows a sensation of pain and a certain joy follows from a sensation of [pleasurable] titillation, or why some sort of twitching in the stomach, which I call hunger, is urging me to eat food, while the dryness of my throat [is urging me] to drink, and so on—for that I had no logical explanation, other than that these were things I had learned from nature. For there is clearly no relationship (at least, none I can understand) between that twitching [in the stomach] and the desire to consume food, or between the sensation of something causing pain and the awareness of

sorrow arising from that feeling. But it seemed to me that all the other judgments I made about objects of sense experience I had learned from nature. For I had convinced myself that that was how things happened, before I thought about any arguments which might prove it.

However, many later experiences have gradually weakened the entire faith I used to have in the senses. For, now and then, towers which seemed round from a distance appeared square from near at hand, immense statues standing on the tower summits did not seem large when I viewed them from the ground, and in countless other cases like these I discovered that my judgments were deceived in matters dealing with external senses. And not just with external [senses], but also with internal ones as well. For what could be more internal than pain? And yet I heard that people whose legs or arms had been cut off sometimes still seemed to feel pain in the part of their body which they lacked. Thus, even though I were to feel pain in one of my limbs, I did not think I could be completely certain that it was the limb which caused my pain. To these reasons for doubting sense experience, I recently added two extremely general ones. First, there was nothing I ever thought I was sensing while awake that I could not also think I was sensing now and then while asleep, and since I do not believe that those things I appear to sense in my sleep come to me from objects placed outside me, I did not see why I should give more credit to those I appear to sense when I am awake. Second, because I was still ignorant—or at least was assuming I was ignorant—of the author of my being, there seemed to be nothing to prevent nature from constituting me in such a way that I would make mistakes, even in those matters which seemed to me most true. As for the reasons which had previously convinced me of the truth of what I apprehended with my senses, I had no difficulty refuting them. For since nature seemed to push me to

accept many things which my reason opposed, I believed I should not place much trust in those things nature taught. And although perceptions of the senses did not depend upon my will, I did not believe that was reason enough for me to conclude that they must come from things different from myself, because there could well be some other faculty in me, even one I did not yet know, which produced them.

But now that I am starting to gain a better understanding of myself and of the author of my being, I do not, in fact, believe that I should rashly accept all those things I appear to possess from my senses, but, at the same time, [I do not think] I should call everything into doubt.

First, since I know that all those things I understand clearly and distinctly could have been created by God in a way that matches my conception of them, the fact that I can clearly and distinctly understand one thing, distinguishing it from something else, is sufficient to convince me that the two of them are different, because they can be separated from each other, at least by God. The power by which this [separation] takes place is irrelevant to my judgment that they are distinct. And therefore, given the mere fact that I know I exist and that, at the moment, I look upon my nature or essence as absolutely nothing other than that I am a thinking thing, I reasonably conclude that my essence consists of this single fact: I am a thinking thing. And although I may well possess (or rather, as I will state later, although I certainly do possess) a body which is very closely joined to me, nonetheless, because, on the one hand, I have a clear and distinct idea of myself, insofar as I am merely a thinking thing, without extension, and, on the other hand, [I have] a distinct idea of body, insofar as it is merely an extended thing which does not think, it is certain that my mind is completely distinct from my body and can exist without it.

Moreover, I discover in myself faculties for certain special forms of thinking, namely,

the faculties of imagining and feeling. I can conceive of myself clearly and distinctly as a complete being without these, but I cannot do the reverse and think of these faculties without me, that is, without an intelligent substance to which they belong. For the formal conception of them includes some act of intellection by which I perceive that they are different from me, just as [shapes, movement, and the other] modes [or accidents of bodies are different] from the object [to which they belong]. I also recognize certain other faculties [in me], like changing position, assuming various postures, and so on, which certainly cannot be conceived, any more than those previously mentioned, apart from some substance to which they belong, and therefore they, too, cannot exist without it. However, it is evident that these [faculties], if indeed they [truly] exist, must belong to some corporeal or extended substance, and not to any intelligent substance, since the clear and distinct conception of them obviously contains some [form of] extension, but no intellectual activity whatsoever. Now, it is, in fact, true that I do have a certain passive faculty of perception, that is, of receiving and recognizing ideas of sensible things. But I would be unable to use this power unless some active faculty existed, as well, either in me or in some other substance capable of producing or forming these ideas. But this [active faculty] clearly cannot exist within me, because it presupposes no intellectual activity at all, and because, without my cooperation and often even against my will, it produces those ideas. Therefore I am left to conclude that it exists in some substance different from me that must contain, either formally or eminently,* all

* Eds.: Here Descartes is using terms from medieval Scholastic philosophy. Elsewhere Descartes defines the first term in this way: "Whatever exists in the objects of our ideas in a way that corresponds to our perception of it is said to exist *formally* in those objects." The other he defines in this way: "Something is said to exist *eminently*

the reality objectively present[†] in the ideas produced by that faculty (as I have just observed above). This substance is either a body, that is, something with a corporeal nature which obviously contains formally everything objectively present in the ideas, or it must be God, or some other creature nobler than the body, one that contains [those same things] eminently. But since God is not a deceiver, it is very evident that He does not transmit these ideas to me from Himself directly or even through the intervention of some other creature in which their objective reality is contained, not formally but only eminently. For since he has given me no faculty whatsoever for recognizing such a source, but by contrast, has endowed me with a powerful tendency to believe that these ideas are sent out from corporeal things, I do not see how it would be possible not to think of Him as a deceiver, if these [ideas] were sent from any source other than corporeal things. And therefore corporeal things exist.

However, perhaps they do not all exist precisely in the ways I grasp them with my senses, since what I comprehend with my senses is very obscure and confused in many things. But at least [I should accept as true] all those things in

in an object when, although it does not correspond exactly to our perception of it, its greatness is such that it can fill the role of that to which it does correspond." See René Descartes, *The Philosophical Writings of Descartes*, John Cottingham, Robert Stoothoff and Dugald Murdoch (trans.) (Cambridge: Cambridge University Press, 1984–91), Volume II, p. 114. The first case applies to ordinary successful perception. The second case applies to the properties of God, which do not correspond to our perception of them (since our perception is inadequate), but they can nonetheless be the *cause* of those perceptions.

† Eds.: Very roughly, in Descartes's use of the terms, something that exists in the mind has *objective* reality, whereas something that actually exists outside the mind has *formal* reality. The idea of a unicorn, for example, has objective reality even though unicorns have no formal reality, whereas the objects we perceive that exist in the actual world have formal reality.

them which I understand clearly and distinctly, that is, generally speaking, everything which is included as an object in pure mathematics.

But regarding other material things which are either merely particular, for example that the sun is of such and such a magnitude and shape, and so on, or less clearly understood, for example light, sound, pain, and things like that, although these may be extremely doubtful and uncertain, nonetheless, because of the very fact that God is not a deceiver and thus it is impossible for there to be any falsity in my opinions which I cannot correct with another faculty God has given me, I have the sure hope that I can reach the truth even in these matters. And clearly there is no doubt that all those things I learn from nature contain some truth. For by the term *nature*, generally speaking, I understand nothing other than either God himself or the coordinated structure of created things established by God, and by the term *my nature*, in particular, nothing other than the combination of all those things I have been endowed with by God.

However, there is nothing that nature teaches me more emphatically than the fact that I have a body, which does badly when I feel pain, which needs food or drink when I suffer from hunger or thirst, and so on. And therefore I should not doubt that there is some truth in this.

For through these feelings of pain, hunger, thirst, and so on, nature teaches me that I am not only present in my body in the same way a sailor is present onboard a ship, but also that I am bound up very closely and, so to speak, mixed in with it, so that my body and I form a certain unity. For if that were not the case, then when my body was injured, I, who am merely a thinking thing, would not feel any pain because of it; instead, I would perceive the wound purely with my intellect, just as a sailor notices with his eyes if something is broken on his ship. And

when my body needed food or drink, I would understand that clearly and not have confused feelings of hunger and thirst. For those sensations of thirst, hunger, pain, and so on are really nothing other than certain confused ways of thinking, which arise from the union and, as it were, the mixture of the mind with the body.

Moreover, nature also teaches me that various other bodies exist around my own and that I should pursue some of these and stay away from others. And certainly from the fact that I sense a wide diversity of colors, sounds, odors, tastes, heat, hardness, and similar things, I reasonably conclude that in the bodies from which these different sense perceptions come there are certain variations which correspond to these perceptions, even if they are perhaps not like them. And given the fact that I find some of these sense perceptions pleasant and others unpleasant, it is entirely certain that my body, or rather my totality, since I am composed of body and mind, can be affected by various agreeable and disagreeable bodies surrounding it.

However, many other things which I seemed to have learned from nature I have not really received from her, but rather from a certain habit I have of accepting careless judgments [about things]. And thus it could easily be the case that these judgments are false—for example, [the opinion I have] that all space in which nothing at all happens to stimulate my senses is a vacuum, that in a warm substance there is something completely similar to the idea of heat which is in me, that in a white or green [substance] there is the same whiteness or greenness which I sense, that in [something] bitter or sweet there is the same taste as I sense, and so on, that stars and towers and anything else some distance away have bodies with the same size and shape as the ones they present to my senses, and things of that sort. But in order to ensure that what I perceive in this matter is sufficiently distinct, I should define more accu-

rately what it is precisely that I mean when I say I have learned something from nature. For here I am taking the word *nature* in a more restricted sense than *the combination of all those things which have been bestowed on me by God*. For this combination contains many things which pertain only to the mind, such as the fact that I perceive that what has been done cannot be undone, and all the other things I grasp by my natural light [without the help of the body]. Such things are not under discussion here. This combination also refers to many things which concern only the body, like its tendency to move downward, and so on, which I am also not dealing with [here]. Instead, I am considering only those things which God has given me as a combination of mind and body. And so nature, in this sense, certainly teaches me to avoid those things which bring a sensation of pain and to pursue those which [bring] a sensation of pleasure, and such like, but, beyond that, it is not clear that with those sense perceptions nature teaches us that we can conclude anything about things placed outside of us without a previous examination by the understanding, because to know the truth about them seems to belong only to the mind and not to that combination [of body and mind]. And so, although a star does not make an impression on my eyes any greater than the flame of a small candle, nonetheless, that fact does not incline me, in any real or positive way, to believe that the star is not larger [than the flame], but from the time of my youth I have made this judgment without any reason [to support it]. And although I feel heat when I come near the fire, and even pain if I get too close to it, that is really no reason to believe that there is something in the fire similar to that heat I feel, any more than there is something similar to the pain. The only thing [I can conclude] is that there is something in the fire, whatever it might be, which brings out in us those sensations of heat or pain. So, too,

although in some space there is nothing which stimulates my senses, it does not therefore follow that the space contains no substances. But I see that in these and in a great many other matters, I have grown accustomed to undermine the order of nature, because, of course, these sense perceptions are, strictly speaking, given to me by nature merely to indicate to my mind which things are agreeable or disagreeable to that combination of which it is a part, and for that purpose they are sufficiently clear and distinct. But then I use them as if they were dependable rules for immediately recognizing the essence of bodies placed outside me. However, about such bodies they reveal nothing except what is confusing and obscure.

In an earlier section, I have already examined sufficiently why my judgments may happen to be defective, in spite of the goodness of God. However, a new difficulty crops up here concerning those very things which nature reveals to me as objects I should seek out or avoid, and also concerning the internal sensations, in which I appear to have discovered errors: for example, when someone, deceived by the pleasant taste of a certain food, eats a poison hidden within it [and thus makes a mistake]. Of course, in this situation, the person's nature urges him only to eat food which has a pleasant taste and not the poison, of which he has no knowledge at all. And from this, the only conclusion I can draw is that my nature does not know everything. There is nothing astonishing about that, because a human being is a finite substance and thus is capable of only limited perfection.

However, we are frequently wrong even in those things which nature urges [us to seek]. For example, sick people are eager for drink or food which will harm them soon afterwards. One could perhaps claim that such people make mistakes because their nature has been corrupted. But this does not remove the difficulty,

for a sick person is no less a true creature of God than a healthy one, and thus it seems no less contradictory that God has given the person a nature which deceives him. And just as a clock made out of wheels and weights observes all the laws of nature with the same accuracy when it is badly made and does not indicate the hours correctly as it does when it completely satisfies the wishes of the person who made it, in the same way, if I look on the human body as some kind of machine composed of bones, nerves, muscles, veins, blood, and skin, as if no mind existed in it, the body would still have all the same motions it now has in those movements that are not under the control of the will and that, therefore, do not proceed from the mind [but merely from the disposition of its organs]. I can readily acknowledge, for example, that in the case of a body sick with dropsy, it would be quite natural for it to suffer from a parched throat, which usually conveys a sensation of thirst to the mind, and for its nerves and other parts also to move in such a way that it takes a drink and thus aggravates the illness. And when nothing like this is harming the body, it is equally natural for it to be stimulated by a similar dryness in the throat and to take a drink to benefit itself. Now, when I consider the intended purpose of the clock, I could say that, since it does not indicate the time correctly, it is deviating from its own nature, and, in the same way, when I think of the machine of the human body as something formed for the motions which usually take place in it, I might believe that it, too, is deviating from its own nature, if its throat is dry when a drink does not benefit its own preservation. However, I am fully aware that this second meaning of the word *nature* is very different from the first. For it is merely a term that depends on my own thought, a designation with which I compare a sick person and a badly constructed clock with the idea of a healthy person and a properly con-

structed clock, and thus, the term is extrinsic to these objects. But by that [other use of the term *nature*] I understand something that is really found in things and that therefore contains a certain measure of the truth.

Now, when I consider a body suffering from dropsy, even though I say that its nature has been corrupted, because it has a dry throat and yet does not need to drink, clearly the word *nature* is merely an extraneous term. However, when I consider the composite, that is, the mind united with such a body, I am not dealing with what is simply a term but with a true error of nature, because this composite is thirsty when drinking will do it harm. And thus I still have to enquire here why the goodness of God does not prevent its nature, taken in this sense, from being deceitful.

At this point, then, my initial observation is that there is a great difference between the mind and the body, given that the body is, by its very nature, always divisible, whereas the mind is completely indivisible. For, in fact, when I think of [my mind], that is, when I think of myself as purely a thinking thing, I cannot distinguish any parts within me. Instead, I understand that I am something completely individual and unified. And although my entire mind seems to be united with my entire body, nonetheless, I know that if a foot or arm or any other part of the body is sliced off, that loss will not take anything from my mind. And I cannot call the faculties of willing, feeling, understanding, and so on parts of the mind because it is the same single mind that wishes, feels, and understands. By contrast, I cannot think of any corporeal or extended substance that my thought is not capable of dividing easily into parts. From this very fact, I understand that the substance is divisible. (This point alone would be enough to teach me that the mind is completely different from the body, if I did not already know that well enough from other sources.)

Furthermore, I notice that the mind is not immediately affected by all parts of the body, but only by the brain, or perhaps even by just one small part of it, namely, the one in which our *common sense* is said to exist. Whenever this part is arranged in the same particular way, it delivers the same perception to the mind, even though the other parts of the body may be arranged quite differently at the time. This point has been demonstrated in countless experiments, which I need not review here.

In addition, I notice that the nature of my body is such that no part of it can be moved by any other part some distance away which cannot also be moved in the same manner by any other part lying between them, even though the more distant part does nothing. So, for example, in a rope ABCD [which is taut throughout], if I pull on part D at the end, then the movement of the first part, A, will be no different than it would be if I pulled at one of the intermediate points, B or C, while the last part, D, remained motionless. And for a similar reason, when I feel pain in my foot, physics teaches me that this sensation occurs thanks to nerves spread throughout the foot. These nerves stretch from there to the brain, like cords, and when they are pulled in my foot, they also pull the inner parts of the brain, where they originate, and stimulate in them a certain motion which nature has established to influence the mind with a sense of pain apparently present in the foot. However, since these nerves have to pass through the shin, the thigh, the loins, the back, and the neck in order to reach the brain from the foot, it can happen that, even if that portion of the nerves which is in the foot is not affected, but only one of the intermediate portions, the motion created in the brain is exactly the same as the one created there by an injured foot. As a result, the mind will necessarily feel the identical pain. And we should assume that the same is true with any other sensation whatsoever.

Finally, I notice that, since each of those motions created in that part of the brain which immediately affects the mind introduces into it only one particular sensation, we can, given this fact, come up with no better explanation than that this sensation, out of all the ones which could be introduced, is the one which serves to protect human health as effectively and frequently as possible [when a person is completely healthy]. But experience testifies to the fact that all sensations nature has given us are like this, and thus we can discover nothing at all in them which does not bear witness to the power and benevolence of God. Thus, for example, when the nerves in the foot are moved violently and more than usual, their motion, passing through the spinal cord to the inner core of the brain, gives a signal there to the mind which makes it feel something—that is, it feels as if there is a pain in the foot. And that stimulates [the mind] to do everything it can to remove the cause of the pain as something injurious to the foot. Of course, God could have constituted the nature of human beings in such a way that this same motion in the brain communicated something else to the mind, for example, a sense of its own movements, either in the brain, or in the foot, or in any of the places in between—in short, of anything you wish. But nothing else would have served so well for the preservation of the body. In the same way, when we need a drink, a certain dryness arises in the throat which moves its nerves and, with their assistance, the inner parts of the brain. And this motion incites in the mind a sensation of thirst, because in this whole situation nothing is more useful for us to know than that we need a drink to preserve our health. The same is true for the other sensations.

From this it is clearly evident that, notwithstanding the immense goodness of God, human nature, given that it is composed of mind and body, cannot be anything other

than something that occasionally deceives us. For if some cause, not in the foot, but in some other part through which the nerves stretch between the foot and the brain, or even in the brain itself, stimulates exactly the same motion as that which is normally aroused when a foot is injured, then pain will be felt as if it were in the foot, and the sensation will naturally be deceiving. Since that same motion in the brain is never capable of transmitting to the mind anything other than the identical sensation and since [the sensation] is habitually aroused much more frequently from an injury in the foot than from anything else in another place, it is quite reasonable that it should always transmit to the mind a pain in the foot rather than a pain in any other part of the body. And if sometimes dryness in the throat does not arise, as it usually does, from the fact that a drink is necessary for the health of the body, but from some different cause, as occurs in a patient suffering from dropsy, it is much better that it should deceive us in a case like that than if it were, by contrast, always deceiving us when the body is quite healthy. The same holds true with the other sensations.

This reflection is the greatest help, for it enables me not only to detect all the errors to which my nature is prone, but also to correct or to avoid them easily. For since I know that, in matters concerning what is beneficial to the body, all my senses show [me] what is true much more frequently than they deceive me, and since I can almost always use several of them to examine the same matter and, in addition, [can use] my memory, which connects present events with earlier ones, as well as my understanding, which has now ascertained all the causes of my errors, I should no longer fear

that those things which present themselves to me every day through my senses are false. And I ought to dismiss all those exaggerated doubts of the past few days as ridiculous, particularly that most important [doubt] about sleep, which I did not distinguish from being awake. For now I notice a significant distinction between the two of them, given that our memory never links our dreams to all the other actions of our lives, as it [usually] does with those things which take place when we are awake. For clearly, if someone suddenly appears to me when I am awake and then immediately afterwards disappears, as happens in my dreams, so that I have no idea where he came from or where he went, I would reasonably judge that I had seen some apparition or phantom created in my brain [similar to the ones created when I am asleep], rather than a real person. But when certain things occur and I notice distinctly the place from which they came, where they are, and when they appeared to me, and when I can link my perception of them to the rest of my life as a totality, without a break, then I am completely certain that this is taking place while I am awake and not in my sleep. And I should not have the slightest doubt about the truth of these perceptions if, after I have called upon all my senses, my memory, and my understanding to examine them, I find nothing in any of them which contradicts any of the others. For since God is not a deceiver, it must follow that in such cases I am not deceived. But because, in dealing with what we need to do, we cannot always take the time for such a scrupulous examination, we must concede that human life is often prone to error concerning particular things and that we need to acknowledge the frailty of our nature.

Study Questions

1. Descartes reasons that he cannot be mistaken about the facts that he is thinking, that it follows that as long as this is true, he exists as a thinking thing, and that this is the basic nature of his *self*. But here's an objection: Descartes already has admitted that any bit of his reasoning might turn out to be false; so doesn't this apply to the reasoning just described? Defend this objection against Descartes, or defend Descartes against this objection.
2. Outline Descartes's reasoning in the "piece-of-wax" example. Explain in your own words how it's supposed to follow that we don't know about external objects through our senses, but rather through the intellect. Does this really follow from this example? If you don't think so, explain how we do know that this changed object is the same piece of wax.
3. Think about truths of geometry such as *The sum of the lengths of any two sides of a triangle is greater than the length of the third* or truths of arithmetic such as $7 + 5 = 12$. Try to explain why Descartes would count these as "clear and distinct" as opposed to, say, beliefs about particular things you perceive with the senses. In what sense are the former "clear and distinct"? Do you think that this sort of belief is more likely to be true? Why?
4. In the first three sentences of the Sixth Meditation, Descartes gives a complicated argument about the existence of material things, based on God's capability. Outline his reasoning here.
5. Explain in your own words what Descartes takes to be the difference between imagination and pure understanding as Descartes explains it in the third paragraph of the Sixth Meditation. Why does he suppose that imagining something increases the probability that the thing exists, while this is not true for pure understanding?
6. In the Sixth Meditation, Descartes talks about his experience of square towers looking round, and enormous statues seeming small. Explain in your own words why rare experiences like this undermine his general faith in the information of his senses. Do these cases show that no sense perception is clear and distinct?
7. Outline in your own words Descartes's argument in the long paragraph in the Sixth Meditation beginning "Moreover this," and ending "And therefore corporeal things exist."
8. It's not terribly clear what Descartes means when he says that his body is "divisible" whereas his mind isn't? Try to explain what he meant here.
9. Explain how Descartes argues in the Sixth Meditation that the fallibility of our senses is consistent with the benevolence of God—with the fact that God is not a deceiver.
10. Some philosophers (atheists and believers alike) regard Descartes's reliance on God as a non-deceiver as rather a cheat. See if you can come up with a way to establish the general reliability of the senses without bringing in God. (Hint: One way this might be tried is to use the idea of our sense-organs having *evolved* through Darwinian natural selection. But consider this: doesn't our evidence for this, as for every other bit of science, depend on our *assuming* the reliability of the senses?)

Suggested Readings

There is a great deal of secondary literature on Descartes. Some suggestions:

Joseph Almog, *What Am I? Descartes and the Mind-Body Problem*. (New York: Oxford University Press, 2002).

Gordon Baker and Katherine J. Morris, *Descartes's Dualism*. (London: Routledge, 1996).

Vere C. Chappell, "Descartes's Ontology," *Topoi* 16 (1997): pp. 111–27.

John Cottingham (1992), "Dualism: Theology, Metaphysics, and Science," in *The Cambridge Companion to Descartes*, John Cottingham, ed. (Cambridge: Cambridge University Press, 1992); and his *Descartes*. (New York: Routledge, 1999).

Daniel Garber, *Descartes Embodied: Reading Cartesian Philosophy through Cartesian Science*. (Cambridge: Cambridge University Press, 2001).

Michael Hooker, ed., *Descartes: Critical and Interpretive Essays*. (Baltimore: Johns Hopkins University Press, 1978).

Marleen Rozemond, *Descartes's Dualism*. (Cambridge, MA: Harvard University Press, 1998).

Bernard Williams, *Descartes: The Project of Pure Enquiry*. (Harmondsworth: Penguin Books, 1978).

Margaret Wilson, *Descartes*. (London: Routledge, 1978); and her *Ideas and Mechanism: Essays in Early Modern Philosophy*. (Princeton: Princeton University Press, 1999).

Almost every work on philosophy of mind talks about Descartes, and almost all of them outline Cartesian dualism's problems. Works starting with a clear account of them (but going on to argue for alternative positions) include:

Keith Campbell, *Body and Mind*. (London: Macmillan, 1970).

Peter Smith and O.R. Jones, *Philosophy of Mind*. (Cambridge: Cambridge University Press, 1986).

Paul Churchland, *Matter and Consciousness*, 2nd edition. (Cambridge, MA: MIT Press, 1988).

David M. Armstrong, *A Materialist Theory of Mind*. (London: Routledge, 1968).

David Braddon-Mitchell and Frank Jackson, *Philosophy of Mind and Cognition: An Introduction*, 2nd edition. (Oxford: Blackwell, 2007).

A contemporary argument for Cartesian dualism can be found in Sidney Shoemaker, "On an Argument for Dualism," in *Knowledge and Mind*, Carl Ginet and Sydney Shoemaker (eds.). (Oxford: Oxford University Press, 1983).