

## Chapter 30

### Mind in the Cosmos: Descartes' Mechanistic View of the Mind and the Body \*

by

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People sometimes talk about one another in terms that are just as appropriately applied to inanimate objects, and sometimes in terms that are primarily, if not exclusively, applied to human beings. For example, we talk about the size, weight, chemical composition and physical movements of ourselves and others, just as we characterise stones and houses in these ways. In addition, however, we describe the beliefs, desires and perceptions we have, and these types of characterization seem primarily reserved for application to human beings. To mark this contrast, philosophers often discriminate between two kinds of descriptions, physical and psychological.

It is clear that there is some difference between describing people (and animals) in psychological terms, and describing objects in general (including people) in physical terms. This difference reflects the fact that people are described in ways that inanimate objects are not. When we describe people in psychological terms, therefore, it seems that we are saying something about them that is not covered by any physical descriptions. It is generally conceded that this difference exists, even though no general method for classifying particular descriptions as of one sort or the other has been successful, and therefore arguments about apparent borderline cases often occur.

Just what significance this difference may have, however, is unclear. Does it follow from the fact that people are described in both psychological and physical terms that sciences such as physics and chemistry, which employ only physical terms, cannot deal exhaustively with human beings? Is psychology, understood as explaining the psychological behaviour of things, a significantly different kind of science from physics or chemistry? For example, does the use of psychological descriptions in a science limit what can be accomplished by that science, or affect the nature of its methodology? Must a complete description of people contain psychological terms? And if so, does this mean that science can be given a unified foundation only at the cost of failing to deal adequately with human behaviour?

One response to these questions is to claim that all the sciences, including psychology and associated human sciences, can be reduced to physics. The reduction in question would be accomplished if the terms needed for physics, and only those terms, would be sufficient to express all the claims and explanations of psychology. This view, often called "the thesis of the unity of science," has the force of a prediction about the future development of science. It is thought that when scientists have sufficient knowledge about the nature of psychological (and other peculiarly human) matters, it will be seen that psychological matters can be fully described and explained using the concepts and theoretical apparatus of physics. It is of course assumed that the concepts of physics will change with future discovery and theory construction. What is important is that whatever concepts and explanatory techniques are needed to explain the behaviour of nonpsychological objects like planets, airplanes and acids will, on this view, be all that are needed to explain and account for psychological phenomena.

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The difference between the two kinds of description has been a major obstacle to the acceptance of the thesis of the future unity of science, for, a complete account of human behaviour cannot be expressed in physical terms if psychological descriptions say things that physical ones cannot. A defender of the unity of science might claim that even though psychological descriptions differ in nature from physical ones, psychological descriptions can nonetheless be translated into physical ones. According to this defence if such translations were accomplished, this would show that every psychological description of something means the same as some physical description of that object. For example, any description of a person thinking, seeing or wishing could be translated into a description of the person expressed only in physical terms. And in each case, the psychological description would mean the same as the physicalistic translation. Failures to produce such translations have been attributed to our lack of detailed knowledge about human beings. For convenience we may call this defence “the translation view about psychological descriptions.”

The translation view, though at one time not uncommon as a defence of the unity of science, has been almost universally abandoned. For one thing, if psychological descriptions allow us to say things about people that cannot be said by using physical descriptions, it is not clear how this could be unless the difference between them is reflected in their meaning. But then the translations required by this theory cannot be found. This is confirmed by the success contemporary philosophers have had in producing general methods for undermining the sorts of translations that have been proposed. For these reasons, defenders of the unity of science have adopted instead a second line of argument.

The second defence makes a far more modest claim than the first. On this second line, it is not only conceded that psychological descriptions differ from physical ones, but also that they differ in what they mean. It is claimed, however, that in spite of the difference in meaning between any psychological and physical descriptions, still whatever is described in psychological terms can also be described equally well (though differently) in solely physical terms. According to this defence, whenever we talk about an object, state of affairs or event in psychological terms, we can talk about the very same object, state of affairs or event in physical terms. This view is commonly known as *materialism*.

On this account, the things we describe psychologically are no more than physical things, material objects, or states of affairs and events involving material objects. The fact that some objects and events or states of affairs involving them can be described in psychological as well as in physical terms is not taken to show that the objects, states of affairs and events are anything other than, or more than, material in nature. For example, whenever we have a description of a person thinking, seeing or wishing, or of this thought, perception or desire, the materialist claims that what is described is simply a physical object, or a state of affairs or event involving only physical objects. In short, people (and other beings capable of psychological behaviour) are thought of as no more than physical objects, of a suitably complex kind. And the thoughts, perceptions and desires that a person has are considered to be just physical states of his body, or perhaps simply states of some relevant part of that body, such as the brain or central nervous system.<sup>1</sup>

There are two ways in which materialism, formulated in this way, is importantly weaker in its claims than the first defence of the unity of science, the translation view. First of all, materialism follows from the translation view, but not conversely. For if every psychological description meant the same as some physical one, it would follow that every time we talk about something in psychological terms we are talking about something material, something that could be talked about in physical terms. The translation view therefore implies materialism. But the opposite does not hold; materialism could be true and yet the translation view false. For it is in general possible that descriptions that have different meanings should nonetheless be about the same things. An example of this is that one can talk about [Nigeria] by describing it either as [the second largest oil producing nation in Africa or as the most populated nation in Africa]. While these two descriptions will be about the same thing, they clearly do not mean the same. Similarly, it is possible that when we describe something in solely psychological terms we might be able to talk about exactly the same thing in solely physical terms, without it implying that the two descriptions mean the same.

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<sup>1</sup> [See Chapter 15 in volume I “Robotics and the evolution of consciousness” by Hans Moravec, for further expression of this view.—Ed.]

Materialism is also weaker than the translation view because it has seemed that the latter, unlike the former, could be established without a detailed study of psychological beings. For if descriptions expressed in psychological terms meant the same as certain ones using only physical terms, then this could be shown by examining simply what we mean by the words we use. If this were so, and the translation view were offered as a defence of the unity of science, strange results would follow. It would then be possible to defend the unity of science, which is a claim about the results of future scientific investigation, without appealing to any such results. By contrast, offering materialism in support of the unity of science does not result in peculiarities of this sort. For materialism, like the unity of science, can only be established on the basis of results from future scientific study. That is, we shall need to have evidence that there is nothing to the psychological functioning of people that is not describable in physical terms, and that psychological states of people can be described as, and are therefore the same as, certain of the physical states of people.

In particular, suppose that a materialist holds that thoughts and other mental events or states are simply events and states of the brain. To defend this view, he would need to have detailed knowledge about the occurrence of such mental events, and of the physical events that occur simultaneously in the brain. He would also need reason to believe that the psychological events and states he studies are not just causally correlated with the physical events and states that he isolates, but that they are the same. For if causal interaction between the two kinds of states is all that could be established, this would not show that the psychological behaviour of people could itself be studied in that the psychological behaviour of people could itself be studied in physical terms. Rather it would show only that certain causal correlates of such behaviour could be studied in this way.

While materialism can be directly supported only by appealing to knowledge about physiology and psychology that we do not now have, we can still consider in advance of our having such knowledge whether the prediction made by the materialist is a likely one or not. That is, it can be argued whether future scientific research is likely to make the materialist hypothesis seem plausible. The central issue for many participants in this debate is giving a correct account of the nature of psychological descriptions, and of their difference from physical descriptions, and what bearing such difference may have on the plausibility of materialism. Some philosophers think that the materialist hypothesis will eventually be confirmed by scientific research. Others are reluctant to accept the idea that the psychological lives of people can be explained entirely in materialistic terms.

## **CLASSICAL MATERIALISM**

Philosophical interest in materialism has become especially pronounced in the last decade, in large measure stimulated by advances in such areas as neurophysiology, biophysics and computer science. With the increasing explanatory power and sophistication of these sciences, it has seemed more and more likely that science may come to explain and account for our psychological behaviour without needing to describe such behaviour in peculiarly psychological terms.

Similarly, dramatic advances in mechanics in the seventeenth century<sup>2</sup> challenged philosophers to explore the possibility of explaining the behaviour of all objects without the use of psychological terminology. Since it was generally believed that the science of mechanics could explain the physical behaviour of all objects, it was a short step to the speculation that it would be adequate to explain the psychological behaviour of living things as well. And if this could be done, it was believed, it would amount to a vindication of materialism.

Commitment to the adequacy of mechanical explanation is particularly evident in the writings of Descartes. While Descartes regarded mechanical principles as sufficient for a complete explanation of the behaviour of inanimate objects and nonhuman animals, he also urged that such principles did not provide a way of explaining all of the behaviour of human beings. For while much of the behaviour of human bodies is on a par with that of stones and animals, reflex behaviour and being subject to gravity, for example, much human behaviour, Descartes urged, is not. His primary example of such behaviour was speech, seen as expressive of human reasoning ability. Descartes believed that in order to explain

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<sup>2</sup> See Chapter 31 of this volume, "The scientific background to Descartes' dualism," by Arthur Collins.

speech behaviour, it is necessary to regard it as caused by states of something other than a body whose behaviour is subject to mechanical laws. From these considerations Descartes concluded that every person is composed not only of a body or "extended substance," but also of a soul or "thinking substance." While all human behaviour on a par with that of stones or dogs could then be explained by the application of mechanical laws to the human body, other human behaviour would be explained as caused by states of the soul such as thoughts or acts of will.

In so far as Descartes used this kind of argument in support of the existence of souls, his reasoning is not unlike that often used by scientists to establish the existence of theoretical entities such as electrons. For in each case, certain objects whose existence might not be otherwise established are invoked in order to explain readily observable phenomena. And in each case it is assumed that the readily observed phenomena cannot be explained except by appeal to the causal agency of such theoretical entities, that is, entities whose existence is established theoretically. Just as tracks in cloud chambers are thought unexplainable unless they are regarded as caused by subatomic particles, so speech behaviour was thought by Descartes to be unexplainable unless regarded as caused by states of nonmaterial souls such as thoughts.

Descartes uses additional arguments, however, to support his belief that souls exist, and that they are not simply material objects. The argument most often studied is based on his claim that while one can doubt the existence of any material object, including one's own body, one cannot doubt the existence of one's own soul. For in the process of doubting one is engaged in a kind of thinking, and that in itself, Descartes urges, is enough to establish that one's soul, conceived of as a thinking substance, exists. Since the existence of our bodies cannot be established with certainty though this can be done in the case of our own soul, it follows that souls must differ in nature from bodies. Descartes concludes, therefore, that a thinking part of us must exist, and that it cannot be material in nature.

This second argument for the existence of souls is more limited than the first. For while the first is a general argument that people have souls, the second can establish at best only that one's own soul exists, not that anyone else's does. Moreover, the second argument depends on the direct awareness of our own states of mind, doubting in particular. But the nature of our awareness of our own mental states is unclear, and the first argument avoids mention of this problematic matter.

Descartes advances a third argument that the thinking part of us is nonmaterial in nature. He urges that while material objects can be divided into pieces, it seems that souls cannot; therefore the two must be different in kind. This argument seems to rest on the fact that it is not clear that it makes sense to speak of dividing one's consciousness into pieces. For these reasons, Descartes concludes that people have nonmaterial parts, and that physical science will never be able to deal exhaustively with human behaviour.

If, as Descartes believed, it is possible to explain some of the bodily behaviour of human beings by reference to mental events, there must be suitable causal interactions between bodily and mental events. But one may wonder why particular mental events are causally connected with bodily events in the way they are. For example, why is a perception of red correlated with a bodily stimulation by a red object, and not with bodily stimulation by an object of some other sort? Descartes' solution to this question is that the causal relations that obtain are those having the greatest survival and functional value for the body. But this kind of teleological explanation has seemed to many to be too glib. It is unclear, for example, why having noises correlated with auditory sensations and colours correlated with visual ones should be more "conclusive to the welfare of the body" than if these causal correlations were reversed; nor does Descartes discuss this matter. And if survival value is proposed as an explanation, some account will be required of how this beneficial arrangement came to be. Descartes' answer to this last question, that God arranged it that way, seems unacceptable; nor does any evolutionary explanation based on the survival of the fittest seem available.

For reasons such as these, philosophers like Spinoza have attempted to conceive of the relation between a person's mind and body as more intimate than it would be if the two were simply separate objects that happen to interact causally. On Spinoza's view, minds, bodies and all other objects are properties or "modes" (i.e., "modifications") of a single substance. Conceived of as active, that is as having causal agency, this substance is God; conceived of as passive and subject to scientific laws, this substance is nature. Describing any individual object amounts to no more than describing some mode of this substance. And Spinoza claims that any mode whatever can be exhaustively described both in

physical terms and in psychological terms, in his words, both “under the attribute of extension” and “under the attribute of thought.” A mind, on this view, is a mode of substance conceived of under the attribute of thought, and a body is a mode conceived of under the attribute of extension.

The relation between a person’s mind and his body can be described in two ways. Primarily, a mind is the idea of the human body, of the body of the person in question. But a mind is also identical with that body, for “a mode of extension and the idea of that mode are one and the same thing expressed in two different ways.” (Part II, Proposition vii, Note.) It follows similarly that every individual idea, whether a thought, perception or volition, is likewise identical to some mode of substance described under the attribute of extension. So on Spinoza’s view, Descartes’ problem about the causal interaction between souls and bodies can be circumvented. For on this account, the relation between mental states and objects and physical states and objects is not one of causal interaction but one of identity.

While this view clearly implies the materialist hypothesis, it has certain disadvantages as a defence of materialism. Since every individual object can be wholly described either as mental or as material, not only are all psychological things equally material ones, but all material things are equally psychological as well. So this account supports both the claims of the materialist and the opposite claim that all the behaviour of all physical objects can be adequately explained solely in psychological terms. This is a strange result, for there are many physical objects that do not seem to have psychological properties. Moreover, while Spinoza’s views are elegant in systematic development and contain many penetrating philosophical insights, they go far beyond what seems required to defend materialism.

Of all the seventeenth-century philosophers, perhaps Hobbes presents the purest example of materialism. On Hobbes’ view, all objects of whatever sort are no more than complex collections of moving particles, and all their properties are more or less complicated motions of these component particles. Hobbes urged that sensations of living things are no more than motions in the sense organs caused by some chain of movements initiated by the object perceived. Mental events of other kinds, such as thoughts and memories, were regarded by Hobbes in a similar fashion. The relations of cause and effect that mental events have to other events are to be explained on the same mechanical principles that govern all movements of adjacent bodies. Since, like Spinoza, Hobbes denies that there is any causal interaction between a person’s body and some distinct psychological substance, he can circumvent the problem of why that interaction should be as it is.

Hobbes’ attempt to support materialism is limited to a schematic reconstruction of all mental events in uniformly mechanical terms. Similarly, Descartes’ attempt to undermine the plausibility of an entirely mechanical treatment of human behaviour suffered because of the limitations of scientific knowledge then available. In response to limitations like these, contemporary philosophers have tried to evaluate the claims of materialism largely by appeal to considerations different from those invoked by Descartes and Hobbes. In particular, they have tried to evaluate materialism in a way that is as much as possible independent of the current state of knowledge about human beings and human behaviour . . .

## **MIND AS CONSCIOUSNESS**

Descartes was perhaps the first to try to come to terms systematically with the implications a mathematically formulated science has for our concept of mind. Physical reality, as he conceived it, has a single essential characteristic; it is extended, or occupies space. So everything essential to physical reality can be geometrically described, and physical reality is automatically susceptible to mathematical description and explanation.

By contrast, the essence of mind is to think. Descartes arrives at this conclusion as a corollary of his well-known argument that it is impossible to doubt that one exists, since that would mean doubting that one is doubting. No such considerations prevent one from doubting that one has a body. And, since doubting is a kind of thinking, the object whose existence one cannot doubt must be a thinking thing, and need have no bodily parts. The self is essentially a thing that thinks.

Descartes draws on this line of reasoning to develop a fairly full concept of mind. We know about the mind because we cannot doubt our own thinking. This suggests a view of mental activity on which our awareness of our own acts of thinking gives us knowledge far firmer than our knowledge about anything else. Moreover, no thinking takes place in our minds of which we are unaware. And since we

know all our own thoughts, and the essence of mind is thinking, there is nothing about the mind of which we are not directly aware. The mind is transparent to itself.

The way we know about mind has consequences about its nature. Because that knowledge is based solely on our inability to doubt our own thinking, thinking alone is essential to mind. Descartes concludes that all forms of mental activity are kinds of thinking. This idea is natural enough in the case of mental phenomena such as hoping, doubting, desiring, wondering, understanding, believing, and disbelieving. That is because we can always describe these mental phenomena in terms of some state of affairs. To hope, doubt, or believe is always to hope, doubt, or believe that something is the case. We refer generically to all such mental states as thinking.

But what about sensing and feeling? We must understand these, Descartes insists, as either forms of thinking or else not mental states at all. Seeing something red, insofar as it involves the mind, is just its seeming to one that a particular kind of object is there. Descartes counts seeing in this sense as a species of thinking. When seeing does not involve its seeming to one that things are a certain way, he regards it as just bodily stimulation, and therefore not mental at all.

This doctrine fits well with the idea that physical reality can be fully described in mathematical terms. We ordinarily think of physical objects as coloured, and we think of sound as a physical process. The wave motions associated with colour and sound are, of course, mathematically describable. But the qualities of colour and sound themselves are not. We cannot mathematically describe the qualitative character of, say, physical red or the sound of a trumpet.

One reaction to this difficulty is to deny that colour or sound qualities actually exist in physical reality. This idea may seem reasonable, since no such qualities would exist in a world devoid of mental beings. Descartes in effect follows a variant of this strategy. One main reason to hold that physical objects and processes exhibit qualities such as colour and sound is that we assume such physical qualities cause the corresponding qualities of our perceptual sensations. This line of reasoning fails, on Descartes' view, since sensing is just a kind of thinking, and involves no qualitative character.

The inability to doubt that one is doubting, and the related idea that the mind is transparent to itself, is important in another way. One can have access to everything in one's mind only if it is one and the same mind that thinks, doubts, and wonders various things. And because all those mental states are unified in a single centre of consciousness, it seems to make no sense to think of dividing one's mind or consciousness into parts. But because the essence of body is that it is extended, body is essentially divisible. Descartes invokes this contrast to show that mind and body must be distinct objects. The object we ordinarily think of as a person is thus a compound of a mind and a human body with which it causally interacts.

If we know about mind from our knowledge of our own mental states, how do we ever learn about the minds of others, or even that others have minds? Because our bodies obey the laws of physics, we can predict and explain much of their behaviour on the basis of those laws. But Descartes holds that some human behaviour, most notably speech, cannot be so predicted or explained. Speech, moreover, expresses thinking; what we say is always something we think. Because we must explain speech by appeal to the mind, rather than to physical principles, we can infer that others have minds.

Descartes' reasoning here resembles that by means of which scientists establish the existence of theoretical entities, such as electrons. In each case, we infer from certain phenomena to the best explanation of those phenomena: in Descartes' case, from speech behaviour to the thinking needed to explain it. This suggests that—although immediate access to one's own mental states is fundamental to Descartes' conception of the mental—mental states also have, on his conception, something like a theoretical dimension as well.

This line of reasoning also invites an astonishing conclusion. Because he holds that physical principles suffice to explain the behaviour of animals that do not use language, Descartes concludes that such creatures lack mental lives altogether. This extravagant and unbelievable view is not a mere intellectual curiosity, but has actually influenced human treatment of nonhuman animals.

Many doubts can be raised about Descartes' conception of the self as an object distinct from one's body, and about his casting the issues in terms of essential properties. Nonetheless, the concept of mind as transparent to itself and as engaged primarily in thinking continues today to exert a powerful influence on discussions about the mind.

## MIND AND NATURE

The two central components of the Cartesian conception of mind are that mental phenomena are non-physical and that the mind is transparent to itself. These ideas are related. Consciousness may well be the biggest obstacle to seeing how mental states could be special kinds of physical states. If thoughts or sensations exist that are not conscious, perhaps we can explain them in physical terms. But if the mind is transparent to itself, then all mental states without exception are conscious. This equivalence of mind and consciousness therefore supports the conviction that mental phenomena are in some way non-physical.

Moreover, nothing about mental phenomena seems to permit description in mathematical terms. So the idea that the book of nature is written in mathematical language also makes the contrast between mental and physical seem impossible to bridge. The opposition between mental and physical therefore seems most uncompromising when, like Descartes, we both conceive of physical reality as wholly governed by mathematically formulable laws and also equate mind with consciousness.

Indeed, the idea that mind is transparent to itself seems actually to reflect a kind of mathematical model for the mind. It is natural to regard mathematical objects as immediately accessible to the intellect. Intellectual scrutiny would thus yield exhaustive and infallible knowledge of those objects. So if mind is transparent to itself, mental states would thus far be like mathematical entities. This analogy is reinforced by the idea that the objects of our thoughts and desires are abstract propositions, since abstract objects are generally held to be subject to unmediated mental apprehension.

But there is reason to doubt that mind and consciousness are equivalent. Little of what we know or believe is conscious at any particular moment, yet knowledge and beliefs are presumably stored in the mind. And desires and emotions often influence us even at times when we are unaware of them.

Perhaps even more important, thinking of physical reality in terms of the mathematically formulable laws of physics may well result in an inaccurate picture of how mind is related to the rest of reality. Most of our commonsense conceptions are alien to the framework of such a physics, even though the objects we describe in commonsense terms are plainly physical. This resistance of commonsense conceptions to redescription in mathematical terms is perhaps most dramatic with the phenomena of life, though these are indisputably physical processes. Biological processes are no more than vastly complex interactions among subatomic particles, but we would despair of trying to capture our commonsense understanding of life functions in terms of mathematical laws. So resistance to mathematical description does not show something to be non-physical.

The sense of opposition between mind and matter may therefore be muted, and perhaps dispelled altogether, if we describe the world in commonsense terms when we formulate the problem about the place of mental phenomena in the rest of reality. This would require, among other things, that we pay special attention to the various distinctive levels of study intermediate between basic physics and conscious mind. And the biological might play an especially important role in helping to bridge the intuitive gulf between matter and mind, since biological processes are closely tied to many mental phenomena, such as perceiving and feeling. Descartes' stark opposition between mind and body goes hand in hand with his mechanical conception of life, and the attendant downgrading the status of sensing and feelings as mental phenomena.

[Most contemporary philosophers of mind, for very different reasons]—e.g. Gilbert Ryle, Peter Strawson, Gareth Matthews, and G. Elizabeth Anscombe—all challenge the Cartesian pictures of the place of mind in reality.<sup>3</sup> Ryle argues that the distinction between mental and physical is not a distinction between two distinct kinds of entity or process, but between two ways of describing creatures with psychological abilities. It is therefore a conceptual mistake to hold that non-physical processes take place in the mind that interact with various bodily processes, a mistake that results from holding that psychological descriptions refer to processes in the very same way that bodily descriptions do. One

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<sup>3</sup> [Further representative readings selected by D. M. Rosenthal: "Descartes' Myth" in *The Concept of Mind* by Gilbert Ryle, London: Hutchinson and Co. (1949) chapter 1. "Self, Mind and Body," by P. F. Strawson in *Common Factor* vol. 4 (Autumn 1966). "Consciousness and Life," by Gareth B. Matthews, in *Philosophy*, the journal of The Royal Institute of Philosophy, vol. 199 (January 1977) pp. 13-26. "The First Person," by G. E. M. Anscombe, from *Mind and Language: Wolfson College Lectures* (1974) ed. Samuel Guttenplan, Oxford University Press, 1975.—Ed.]

therefore tries to model mental phenomena on physical processes, specifically, the mechanical processes of modern physics. To describe somebody in mental terms, Gilbert Ryle urges, is actually no more than to say that the person does something, or might do it, in some special way, for example, intelligently or attentively.

On the Cartesian view, the mind, or self, is an independently existing, purely mental object. Peter Strawson argues that such a conception allows no way to distinguish a single mind from more than one. And a concept of mind that allows us no way to do that, he concludes, is incoherent. Minds therefore cannot exist independently of people, in roughly the way a table's surface cannot exist without the table. We must conceive of people as having both physical and mental characteristics. Since the concept of a person is more basic than the concept of a mind, mental phenomena are states of people, not states of independent minds.

Matthews points out that given the way we ordinarily think about things, nothing can think or be conscious unless it is alive. Descartes' theory of mind severs this commonsense tie between consciousness and life. And seeing mental and bodily function as independent, Matthews argues, goes hand in hand with conceiving of the mind as transparent to itself. As Matthews notes, this idea leads to seemingly intractable difficulties, which gives us good reason to reject the Cartesian framework and the independence it implies between consciousness and life.

Anscombe also holds that it is a person, conceived of as a living human body, which has thoughts and ideas. According to her, the fundamental Cartesian mistake is to insist that the function of the word 'I' is to refer to something. Referring requires having a conception of what kind of thing we refer to, and only a notion of a self defined by the Cartesian idea of self-consciousness could provide that for the word 'I'. If the word 'I' refers at all, therefore, we cannot avoid Descartes' conclusion that it refers to an independently existing self. But insuperable difficulties face that notion of a self as well as the idea that the word 'I' refers to something. Anscombe concludes that when I ostensibly think something about myself, say, that I am standing, my thought is to have an unmediated conception of standing. It may well be, however, that this alternative construal faces difficulties of its own.

## **Selections \***

*from*

### **René Descartes' *MEDITATIONS ON FIRST PHILOSOPHY***

#### **SECOND MEDITATION**

##### **The Nature of the Human Mind, and How It Is Better Known Than the Body \*\***

So serious are the doubts into which I have been thrown as a result of yesterday's meditation that I can neither put them out of my mind nor see any way of resolving them. It feels as if I have fallen unexpectedly into a deep whirlpool which tumbles me around so that I can neither stand on the bottom nor swim up to the top. Nevertheless I will make an effort and once more attempt the same path that I started on yesterday. Anything which admits of the slightest doubt I will set aside just as if I had found it to be wholly false; and I will proceed in this way until I recognize something certain, or, if nothing else, until I at least recognize for certain that there is no certainty. Archimedes used to demand just one firm and immovable point in order to shift the entire earth; so I too can hope for great things if I manage to find just one thing, however slight, that is certain and unshakeable.

I will suppose then, that everything I see is spurious. I will believe that my memory tells me lies, and that none of the things that it reports ever happened. I have no senses. Body, shape, extension, movement and place are chimeras. So what remains true? Perhaps just the one fact that nothing is certain.



Yet apart from everything I have just listed, how do I know that there is not something else which does not allow even the slightest occasion for doubt? Is there not a God or whatever I may call him, who puts into me the thoughts I am now having? But why do I think this, since I myself may perhaps be the author of these thoughts? In that case am not I, at least, something? But I have just said that I have no senses and no body. This is the sticking point: what follows from this? Am I not so bound up with a body and with senses that I cannot exist without them? But I have convinced myself that there is absolutely nothing in the world, no sky, no earth, no minds, no bodies. Does it now follow that I too do not exist? No: if I convinced myself of something then I certainly existed. But there is a deceiver of supreme power and cunning who is deliberately and constantly deceiving me. In that case I too undoubtedly exist, if he is deceiving me; and let him deceive me as much as he can, he will never bring it about that I am nothing so long as I think that I am something. So after considering everything very thoroughly, I must finally conclude that this proposition, *I am, I exist*, is necessarily true whenever it is put forward by me or conceived in my mind.

But I do not yet have a sufficient understanding of what this 'I' is, that now necessarily exists. So I must be on my guard against carelessly taking something else to be this 'I', and so making a mistake in the very item of knowledge that I maintain is the most certain and evident of all. I will therefore go back and meditate on what I originally believed myself to be, before I embarked on this present train of thought. I will then subtract anything capable of being weakened, even minimally, by the arguments now introduced, so that what is left at the end may be exactly and only what is certain and unshakeable.

What then did I formerly think I was? A man. But what is a man? Shall I say "a rational animal"? No; for then I should have to inquire what an animal is, what rationality is, and in this way one question would lead me down the slope to other harder ones, and I do not now have the time to waste on subtleties of this kind. Instead I propose to concentrate on what came into my thoughts spontaneously and quite naturally whenever I used to consider what I was. Well, the first thought to come to mind was that I had a face, hands, arms and the whole mechanical structure of limbs which can be seen in a corpse, and which I called the body. The next thought was that I was nourished, that I moved about, and that I engaged in sense-perception and thinking; and these actions I attributed to the soul. But as to the nature of this soul, either I did not think about this or else I imagined it to be something tenuous, like a wind or fire or ether, which permeated my more solid parts. As to the body, however, I had no doubts about it, but thought I knew its nature distinctly. If I had tried to describe the mental conception I had of it, I would have expressed it as follows: by a body I understand whatever has determinable shape and a definable location and can occupy a space in such a way as to exclude any other body; it can be perceived by touch, sight, hearing, taste or smell, and can be moved in various ways, not by itself but by whatever else comes into contact with it. For, according to my judgement, the power of self-movement, like the power of sensation or of thought, was quite foreign to the nature of a body; indeed it was a source of wonder to me that certain bodies were found to contain faculties of this kind.

But what shall I now say that I am, when I am supposing that there is some supremely powerful and, if it is permissible to say so, malicious deceiver, who is deliberately trying to trick me in every way he can? Can I now assert that I possess even the most insignificant of all the attributes which I have just said belong to the nature of a body? I scrutinize them, think about them, go over them again, but nothing suggests itself: It is tiresome and pointless to go through the list once more. But what about the attributes I assigned to the soul? Nutrition or movement? Since now I do not have a body, these are mere fabrications. Sense-perception? This surely does not occur without a body, and besides, when asleep I have appeared to perceive through these senses many things which I afterwards realised I did not perceive through the senses at all. Thinking? At last I have discovered it—thought; this alone is inseparable from me. I am, I exist—that is certain. But for how long? For as long as I am thinking. For it could be that were I totally to cease from thinking, I should totally cease to exist. At present I am not admitting anything except what is necessarily true. I am, then, in the strict sense only a thing that thinks, that is, I am a mind, or intelligence, or intellect, or reason—words whose meaning I have been ignorant of until now. But for all that I am a thing which is real and which truly exists. But what kind of a thing? As I have just said—a thinking thing.

What else am I? I will use my imagination. I am not that structure of limbs which is called a human body. I am not even something vapour which permeates the limbs—a wind, fire, air, breath, or whatever I depict in my imagination; for these are things which I have supposed to be nothing. Let this

supposition stand; for all that I am still something. And yet may it not perhaps be the case that these very things which I am supposing to be nothing, because they are unknown to me, are in reality identical with the 'I' of which I am aware? . . .

. . . Let us consider the things which people commonly think they understand most distinctly of all; that is, the bodies which we touch and see. I do not mean bodies in general—for general perceptions are apt to be somewhat more confused but one particular body. Let us take, for example, this piece of wax. It has just been taken from the honeycomb; it has not yet quite lost the taste of the honey; it retains some of the scent of the flowers from which it was gathered; its colour, shape and size are plain to see; it is hard, cold and can be handled without difficulty; if you rap it with your knuckle it makes a sound. In short, it has everything which appears necessary to enable a body to be known as distinctly as possible. But even as I speak, I put the wax by the fire, and look: the residual taste is eliminated, the smell goes away, the colour changes, the shape is lost, the size increases; it becomes liquid and hot; you can hardly touch it, and if you strike it, it no longer makes a sound. But does the same wax remain? It must be admitted that it does; no one denies it, no one thinks otherwise. So what was it in the wax that I understood with such distinctness? Evidently none of the features which I arrived at by means of the senses; for whatever came under taste, smell, sight, touch or hearing has now altered—yet the wax remains.

Perhaps the answer lies in the thought which now comes to my mind; namely, the wax was not after all the sweetness of the honey, or the fragrance of the flowers, or the whiteness, or the shape, or the sound, but was rather a body which presented itself to me in these various forms a little while ago, but which now exhibits different ones. But what exactly is it that I am now imagining? Let us concentrate, take away everything which does not belong to the wax, and see what is left: merely something extended, flexible and changeable. But what is meant here by 'flexible' and 'changeable'? Is it what I picture in my imagination: that this piece of wax is capable of changing from a round shape to a square shape, or from a square shape to a triangular shape? Not at all; for I can grasp that the wax is capable of countless changes of this kind, yet I am unable to run through this immeasurable number of changes in my imagination, from which it follows that it is not the faculty of imagination that gives me my grasp of the wax as flexible and changeable. And what is meant by 'extended'? Is the extension of the wax also unknown? For it increases if the wax melts, increases again if it boils, and is greater still if the heat is increased. I would not be making a correct judgement about the nature of wax unless I believed it capable of being extended in many more different ways than I will ever encompass in my imagination. I must therefore admit that the nature of this piece of wax is in no way revealed by my imagination, but is perceived by the mind alone. (I am speaking of this particular piece of wax: the point is even clear with regard to wax in general.) But what is this wax which is perceived by the mind alone? It is of course the same wax which I see, which I touch, which I picture in my imagination, in short the same wax which I thought it to be from the start. And yet, and here is the point, the perception I have of it is a case not of vision or touch or imagination—nor has it ever been, despite previous appearances—but of purely mental scrutiny: and this can be imperfect and confused, as it was before, or clear and distinct as it is now, depending on how carefully I concentrate on what the wax consists in.

But as I reach this conclusion I am amazed at how (weak and) prone to error my mind is. For although I am thinking about these matters within myself, silently and without speaking, nonetheless the actual words bring me up short, and I am almost tricked by ordinary ways of talking that we see the wax itself, if it is there before us, not that we judge it to be there from its colour or shape; and this might lead me to conclude without more ado that knowledge of the wax comes from what the eye sees, and not from the scrutiny of the mind alone. But then if I look out of the window and see men crossing the square, as I just happen to have done, I normally say that I see the men themselves, just as I say that I see the wax. Yet do I see any more than hats and coats which could conceal automatons? I judge that they are men. And so something which I thought I was seeing with my eyes is in fact grasped solely by the faculty of judgement which is in my mind.

However, one who wants to achieve knowledge above the ordinary level should feel ashamed at having taken ordinary ways of talking as a basis for doubt. So let us proceed, and consider on which occasion my perception of the nature of the wax was mere perfect and evident. Was it when I first looked at it, and believed I knew it by my external senses, or at least by what they call the 'common' sense—that is, the power of imagination? Or is my knowledge more perfect now, after a more careful investigation of

the nature of the wax and of the means by which it is known? Any doubt of this issue would clearly be foolish; for what distinctness was there in my earlier perception? Was there anything in it which an animal could not possess? But when I distinguish the wax from its outward forms—take the clothes off, as it were, and consider it naked—then although my judgement may still contain errors, at least my perception now requires a human mind.

But what am I to say about this mind, or about myself? . . . Surely my awareness of my own self is not merely much truer and more certain than my awareness of the wax, but also much more distinct and evident. For if I judge that the wax exists from the fact that I see it, clearly this same fact entails much more evidently that I myself also exist. It is possible that what I see is not really the wax; it is possible that I do not even have eyes with which to see anything. But when I see, or think I see (I am not here distinguishing the two), it is simply not possible that I who am now thinking am not something. By the same token, if I judge that the wax exists from the fact that I touch it, the same result follows, namely that I exist. If I judge that it exists from the fact that I imagine it, or for any other reason, exactly the same thing follows. And the result that I have grasped in the case of the wax may be applied to everything else located outside me. Moreover, if my perception of the wax seemed more distinct after it was established not just by sight or touch but by many other considerations, it must be admitted that I now know myself even more distinctly. This is because every consideration whatsoever which contributes to my perception of the wax, or of any other body, cannot but establish even more effectively the nature of my own mind . . .

. . . I see without any effort I have now finally got back to where I wanted. I now know that even bodies are not strictly perceived by the senses or the faculty of imagination but by the intellect alone, and that this perception derives not from their being touched or seen but from their being understood; and in view of this I know plainly that I can achieve an easier and more evident perception of my own mind than of anything else. But since the habit of holding on to old opinions cannot be set aside so quickly, I should like to stop here and meditate for some time on this new knowledge I have gained, so as to fix it more deeply in my memory.

## SIXTH MEDITATION

### **The Existence of Material Things, and the Real Distinction Between Mind and Body \*\*\***

I will first recall to myself what kinds of things I previously thought were real, as being perceived in sensation; then I will set out my reasons for having later on called them in question; finally I will consider what to hold now.

In the first place, then: I had sensations of having a head, hands, feet, and the other members that make up the body; and I regarded the body as part of myself, or even as my whole self. I had sensations of the commerce of this body with many other bodies, which were capable of being beneficial or injurious to it in various ways; I estimated the beneficial effects by a sensation of pleasure, and the injurious, by a sensation of pain. Besides pain and pleasure, I had internal sensations of hunger, thirst, and other such appetites; and also of physical inclinations towards gladness, sadness, anger, and other like emotions. I had external sensations not only of the extension, shapes, and movements of bodies, but also of their hardness, heat, and other tangible qualities; also, sensations of light, colours, odours, flavours, and sounds. By the varieties of these qualities I distinguished from one another the sky, the earth, the seas, and all other bodies.

I certainly had some reason, in view of the ideas of these qualities that presented themselves to my consciousness (*cognitioni*), and that were the only proper and immediate object of my sensations, to think that I was aware in sensation of objects quite different from my own consciousness: viz. bodies from which the ideas proceeded. For it was my experience (*experiebar*) that the ideas came to me without any consent of mine; so that I could neither have a sensation of any object, however I wished, if it were not present to the sense-organ, nor help having the sensation when the object was present. Moreover, the ideas perceived in sensation were much more vivid and prominent, and, in their own way, more distinct, than any that I myself deliberately produced in my meditations, or observed to have been impressed on my memory; and thus it seemed impossible for them to proceed from myself; and the only remaining possibility was that they came from some other objects. Now since I had no conception of

these objects from any other source than the ideas themselves, it could not but occur to me that they were like the ideas. Further, I remembered that I had had the use of the senses before the use of reason; and I saw that the ideas I formed myself were less prominent than those I perceived in sensation, and mostly consisted of parts taken from sensation; I thus readily convinced myself that I had nothing in my intellect that I had not previously had in sensation.

Again, I had some reason for holding that the body I called my body by a special title really did belong to me more than any other body did. I could never separate myself entirely from it, as I could from other bodies. All the appetites and emotions I had, I felt in the body and on its account. I felt pain, and the titillations of pleasure, sadness of the mind follow upon a sensation of pain, and a kind of happiness upon the titillation of sense? Why should twitching of the stomach which I call hunger tell me that I must eat; and a dryness of the throat, that I must drink; and so on? I could give no account of this except that nature taught me so; for there is no likeness at all, so far as I can see, between the twitching in the stomach and the volition to take food; or between the sensation of an object that gives me pains and the experience (*cogitationem*) of sadness that arises from the sensation. My other judgments, too, as regards the objects of sensation seemed to have been lessons of nature; for I had convinced myself that things were so, before setting out any reasons to prove this.

Since then, however, I have had many experiences that have gradually sapped the faith I had in the senses. It sometimes happened that towers which had looked round at a distance looked square when close at hand and that huge statues standing on the roof did not seem large to me looking up from the ground. And there were countless other cases like these, in which I found the external senses to be deceived in their judgment; and not only the external senses, but the internal senses as well. What [experience] can be more intimate than pain? Yet I had heard sometimes from people who had had a leg or arm cut off, that they still seemed now and then to feel pain in the part of the body that they lacked; so it seemed in my own case not to be quite certain that a limb was in pain, even if I felt pain in it. And to these reasons for doubting I more recently added two more, of highly general application. First, there is no kind of sensation that I have ever thought I had in waking life, but I may also think I have some time when I am asleep; and since I do not believe that sensations I seem to have in sleep come from external objects, I did not see why I should believe this any the more about sensations I seem to have when I am awake. Secondly, I did not as yet know the Author of my being (or at least pretended I did not); so there seemed to be nothing against my being naturally so constituted as to be deceived even about what appeared to myself most true. As for the reasons of my former conviction that sensible objects are real, it was not difficult to answer them. I was, it seemed, naturally impelled to many courses from which reason dissuaded me; so I did not think I ought to put much reliance on what nature had taught me. And although sense-perceptions did not depend on my will, it must not be concluded, I thought, that they proceed from objects distinct from myself; there might perhaps be some faculty in myself, as yet unknown to me, that produced them.

But now that I am beginning to be better acquainted with myself and with the Author of my being, my view is that I must not rashly accept all the apparent data of sensation; nor, on the other hand, call them all in question.

In the first place, I know that whatever I clearly and distinctly understand can be made by God just as I understand it; so my ability to understand one thing clearly and distinctly apart from another is enough to assure me that they are distinct, because God at least can separate them. (It is irrelevant what faculty enables me to think of them as separate.) Now I know that I exist, and at the same time I observe absolutely nothing else as belonging to my nature or essence except the mere fact that I am a conscious being; and just from this I can validly infer that my essence consists simply in the fact that I am a conscious being. It is indeed possible (or rather, as I shall say later on, it is certain) that I have a body closely bound up with myself; but at the same time I have, on the one hand, a clear and distinct idea of myself taken simply as a conscious, not an extended, being; and, on the other hand, a distinct idea of body, taken simply as an extended, not a conscious, being; so it is certain that I am really distinct from my body, and could exist without it. . . .

Body is of its nature always divisible; mind is wholly indivisible. When I consider the mind—that is, myself, in so far as I am merely a conscious being—I can distinguish no parts within myself; I understand myself to be a single and complete thing. Although the whole mind seems to be united to the whole body, yet when a foot or an arm or any other part of the body is cut off I am not aware

that any subtraction has been made from the mind. Nor can the faculties of will, feeling, understanding, and so on be called its parts; for it is one and the same mind that wills, feels, and understands. On the other hand, I cannot think of any corporeal or extended object without being readily able to divide it in thought and therefore conceiving of it as divisible. This would be enough to show me the total difference between mind and body, even if I did not sufficiently know this already.

Next, I observe that mind is not directly affected by all parts of the body; but only by the brain, and perhaps only by one small part of that—the alleged seat of common sensibility. . . .

I observe further that, from the nature of body, in whatever way a part of it could be moved by another part at some distance, that same part could also be moved in the same way by intermediate parts, even if the more distant part did nothing . . . [W]hen I feel pain in my foot, I have learnt from the science of physic that this sensation is brought about by means of nerves scattered throughout the foot; these are stretched like cords to the brain, these nerves have to pass through the leg, the thigh, the back and the neck; so it may happen that, although it is not the part in the foot that is touched, but only some intermediate part, there is just the same disturbance produced in the brain as when the foot is injured. . .

Finally, I observe that, since any given disturbance in the part of the brain that directly affects the mind can produce only one kind of sensation, nothing better could be devised than that it should produce that one among all the sensations it could produce which is most conducive, and most often conducive, to the welfare of a healthy man. Now experience shows that all the sensations nature has given us are of power and goodness. For example: when the nerves of the foot are . . . disturbed, this disturbance, by way of the spinal cord, arrives at the interior of the brain; there it gives the mind the signal for it to have a certain sensation, viz. pain, as it were in the foot; and this arouses the mind to do its best to remove the cause of the pain, as being injurious to the foot. Now God might have so made human nature that this very disturbance in the brain was a sign to the mind of something else; it might have been a sign of its own occurrence in the brain; or of the disturbance in the foot, or in some intermediate place; or in fact, of anything else whatever. But there would be no alternative equally conducive to the welfare of the body . . . And so in other cases. . . .

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\* Excerpted from selections made by the author, as they appear in his *The Nature of Mind* (1991) ed. David M. Rosenthal, N.Y.: Oxford University Press; pp. 21-36; and in *Materialism and the Mind-Body Problem* (2000) ed. David M. Rosenthal, Cambridge Mass: Hackett Publishing Co. Inc. pp. 19-30.

\*\* From *The Philosophical Writings of Descartes*, by René Descartes, transl. by John Cottingham, Robert Stoothoff, and Dugald Murdoch, 2 volumes, Cambridge: Cambridge University Press, 1985, reprinted here with the permission of the publisher.

\*\*\* From *Descartes: Philosophical Writings*, trans. and ed. by Elizabeth Anscombe and Peter Thomas Geach, London: Thomas Nelson and Sons, Ltd. (1954) 111-115. The editor invites the publisher to make contact, having tried for two years to apply for the formal permission to include these classic passages; it is reprinted here in good faith, for the purpose of this non-profit edition only.