

Discourse on the Method (1637)

Part Four

I do not know whether I should tell you of the first meditations that I had there, for they are perhaps too metaphysical and uncommon for everyone's taste. And yet, to make it possible to judge whether the foundations I have chosen are firm enough, I am in a way obliged to speak of them. For a long time I had observed, as noted above, that in practical life it is sometimes necessary to act upon opinions which one knows to be quite uncertain just as if they were indubitable. But since I now wished to devote myself solely to the search for truth, I thought it necessary to do the very opposite and reject as if absolutely false everything in which I could imagine the least doubt, in order to see if I was left believing anything that was entirely indubitable. Thus, because our senses sometimes deceive us, I decided to suppose that nothing was such as they led us to imagine. And since there are men who make mistakes in reasoning, committing logical fallacies concerning the simplest questions in geometry, and because I judged that I was as prone to error as anyone else, I rejected as unsound all the arguments I had previously taken as demonstrative proofs. Lastly, considering that the very thoughts we have while awake may also occur while we sleep without any of them being at the that time true, I resolved to pretend that all the things that had ever entered my mind were no more true than the illusions of my dreams. But immediately I noticed that while I was trying thus to think everything false, it was necessary that I, who was thinking this, was something. And observing that this truth '*I am thinking, therefore I exist*' was so firm and sure that all the most extravagant suppositions of the sceptics were incapable of shaking it, I decided that I could accept it without scruple as the first principle of the philosophy I was seeking.

Next I examined attentively what I was. I saw that while I could pretend that I had no body and that there was no world and no place for me to be in, I could not for all that pretend that I did not exist. I saw on the contrary that from the mere fact that I thought of doubting the truth of other things, it followed quite evidently and certainly that I existed; whereas if I had merely ceased thinking, even if everything else I had ever imagined had been true, I should have had no reason to believe that I existed. From this I knew I was a substance whose whole essence or nature is simply to think, and which does not require any place, or depend on any material thing, in order to exist. Accordingly this 'I'—that is, the soul by which I am what I am—is entirely distinct from the body, and indeed is easier to know than the body, and would not fail to be whatever it is, even if the body did not exist.

After this I considered in general what is required of a proposition in order for it to be true and certain; for since I had just found one that I knew to be such, I thought that I ought also to know what this certainty consists in. I observed that there is nothing at all in the proposition '*I am thinking, therefore I exist*' to assure me that I am speaking the truth, except that I see very clearly that in order to think it is necessary to exist. So I decided that I could take it as a general rule that the things we conceive very clearly and very distinctly are all true; only there is some difficulty in recognizing which are the things that we distinctly conceive.

Next, reflecting upon the fact that I was doubting and that consequently my being was not wholly perfect (for I saw clearly that it is a greater perfection to know than to doubt), I decided to inquire into the source of my ability to think of something more perfect than I was; and I recognized very clearly that this had to come from some nature that was in fact more perfect. Regarding the thoughts I had of many other things outside me, like the heavens, the earth, light, heat and numerous others, I had no such difficulty in knowing where they came from. For I observed nothing in them that seemed to make them superior to me; and so I could believe that, if they were true, they depended on my nature in so far as it had any perfection, and if they were not true, I got them from nothing—in other words, they were in me because I had some defect. But the same could not hold for the idea of a being more perfect than my own. For it was manifestly impossible to get this from nothing; and I could not have got it from myself since it is no less contradictory that the more perfect should result from the less perfect, and depend on it, than that something should proceed from nothing. So there remained only the possibility that the idea had been put into me by a nature truly more perfect than I was and even possessing in itself all the perfections of which I could have any idea, that is—to explain myself in one word—by God. To this I added that since I knew of some perfections that I did not possess, I was not the only being which existed (here, by your leave, I shall freely use some scholastic terminology), but there had of necessity to be some other, more perfect being on which I depended and from which I had acquired all that I possessed. For if I had existed alone and independently of every other being, so that I had got from myself what little of the perfect being I participated in, then for the same reason I could have got from myself everything else I knew I lacked, and thus been myself infinite, eternal, immutable, omniscient, omnipotent; in short, I could have had all the perfections which I could observe to be in God. For, according to the arguments I have just advanced, in order to know the nature of God, as far as my own nature was capable of knowing it, I had only to consider, for each thing of which I found in myself some idea, whether or not it was a perfection to possess it; and I was sure that none of those which indicated any imperfection was in God, but that all the others were. Thus I saw that doubt, inconstancy, sadness and the like could not be in God, since I myself would have been very glad to be free from them. Besides this, I had ideas of many corporeal things capable of being perceived by the senses; for even if I were to suppose that I was dreaming and that whatever I saw or imagined was false, yet I could not deny that the ideas were truly in my mind. But since I had already recognized very clearly from my own case that the intellectual nature is distinct from the corporeal, and as I observed that all composition is evidence of dependence and that dependence is manifestly a defect, I concluded that it could not be a perfection in God to be composed of these two natures, and consequently that he was not composed of them. But if there were any bodies in the world, or any intelligences or other natures that were not wholly perfect, their being must depend on God's power in such a manner that they could not subsist for a single moment without him.

After that, wishing to seek other truths, I considered the object studied by geometers. I conceived of this as a continuous body, or a space indefinitely extended in length, breadth and height or depth, and divisible into different parts which may have various shapes and sizes, and may be moved or transposed in every way: for all this is assumed by geometers in their object of study. I went

through some of their simpler demonstrations and noted that the great certainty which everyone ascribes to them is founded solely on their being conceived as evident (in accordance with the rule stated above). I noted also that there was nothing at all in these demonstrations which assured me of the existence of their object. For example, I saw clearly that the three angles of any given triangle must equal two right angles; yet for all that, I saw nothing which assured me that there existed any triangle in the world. Whereas when I looked again at the idea I had of a perfect being, I found that this included existence in the same way as—or even more evidently than—the idea of a triangle includes the equality of its three angles to two right angles, or the idea of a sphere includes the equidistance of all the points on the surface from the centre. Thus I concluded that it is at least as certain as any geometrical proof that God, who is this perfect being, is or exists.

But many are convinced that there is some difficulty in knowing God, and even in knowing what their soul is. The reason for this is that they never raise their minds above things which can be perceived by the senses: they are so used to thinking of things only by imagining them (a way of thinking specially suited to material things) that whatever is unimaginable seems to them unintelligible. This is sufficiently obvious from the fact that even the scholastic philosophers take it as a maxim that there is nothing in the intellect which has not previously been in the senses; and yet it is certain that the ideas of God and of the soul have never been in the senses. It seems to me that trying to use one's imagination in order to understand these ideas is like trying to use one's eyes in order to hear sounds or smell odours—though there is this difference, that the sense of sight gives us no less assurance of the reality of its objects than do the senses of smell and hearing, while neither our imagination nor our senses could ever assure us of anything without the intervention of our intellect.

Finally, if there are still people who are not sufficiently convinced of the existence of God and of their soul by the arguments I have proposed, I would have them know that everything else of which they may think themselves more sure—such as their having a body, there being stars and an earth, and the like—is less certain. For although we have a moral certainty about these things, so that it seems we cannot doubt them without being extravagant, nevertheless when it is a question of metaphysical certainty, we cannot reasonably deny that there are adequate grounds for not being entirely sure about them. We need only observe that in sleep we may imagine in the same way that we have a different body and see different stars and a different earth, without there being any of these things. For how do we know that the thoughts which come to us in dreams are any more false than the others, seeing that they are often no less lively and distinct? However much the best minds study this question, I do not believe they will be able to give any reason sufficient to remove this doubt unless they presuppose the existence of God. For in the first place, what I took just now as a rule, namely that everything we conceive very clearly and very distinctly is true, is assured only for the reasons that God is or exists, that he is a perfect being, and that everything in us comes from him. It follows that our ideas or notions, being real things and coming from God, cannot be anything but true, in every respect in which they are clear and distinct. Thus, if we frequently have ideas containing some falsity, this can happen only because there is something confused and obscure in them, for in that respect they participate in nothingness, that is, they are in us in this confused state only because we are not wholly perfect. And it is evident that it is no less contradictory that falsity or imperfection as such should

proceed from God than that truth or perfection should proceed from nothingness. But if we did not know that everything real and true within us comes from a perfect and infinite being then, however clear and distinct our ideas were, we would have no reason to be sure that they had the perfection of being true.

But once the knowledge of God and the soul has made us certain of this rule, it is easy to recognize that the things we imagine in dreams should in no way make us doubt the truth of the thoughts we have when awake. For if one happened even in sleep to have some very distinct idea (if, say, a geometer devised some new proof), one's being asleep would not prevent the idea from being true. And as to the most common error of our dreams, which consists in their representing various objects to us in the same way as our external senses do, it does not matter that this gives us occasion to doubt the truth of such ideas, for often they can also mislead us without our being asleep—as when those with jaundice see everything coloured yellow, or when stars or other very distant bodies appear to us much smaller than they are. For after all, whether we are awake or asleep, we ought never to let ourselves be convinced except by the evidence of our reason. It will be observed that I say 'our reason', not 'our imagination' or 'our senses'. Even though we see the sun very clearly, we must not judge on that account that it is only as large as we see it; and we can distinctly imagine a lion's head on a goat's body without having to conclude from this that a chimera exists in the world. For reason does not insist that what we thus see or imagine is true. But it does insist that all our ideas or notions must have some foundation of truth; for otherwise it would not be possible that God, who is all-perfect and all-truthful, should have placed them in us. And our reasonings are never so evident or complete in sleep as in waking life, although sometimes our imaginings in sleep are as lively and distinct as in waking life, or more so. Hence reason also demands that, since our thoughts cannot all be true because we are not wholly perfect, what truth they do possess must inevitably be found in the thoughts we have when awake, rather than in our dreams.

Part Five

[...]

I explained all these matters in sufficient detail in the treatise I previously intended to publish. And then I showed what structure the nerves and muscles of the human body must have in order to make the animal spirits inside them strong enough to move its limbs—as when we see severed heads continue to move about and bite the earth although they are no longer alive. I also indicated what changes must occur in the brain in order to cause waking, sleep and dreams; how light, sounds, smells, tastes, heat and the other qualities of external objects can imprint various ideas on the brain through the mediation of the senses; and how hunger, thirst, and the other internal passions can also send their ideas there. And I explained which part of the brain must be taken to be the 'common' sense, where these ideas are received; the memory, which preserves them; and the corporeal imagination, which can change them in various ways, form them into new ideas, and, by distributing the animal spirits to the muscles, make the parts of this body move in as many different ways as the parts of our bodies can move without being guided by the will, and in a manner which is just as appropriate to the objects of the senses and the internal passions. This will not

seem at all strange to those who know how many kinds of automatons, or moving machines, the skill of man can construct with the use of very few parts, in comparison with the great multitude of bones, muscles, nerves, arteries, veins and all the other parts that are in the body of any animal. For they will regard this body as a machine which, having been made by the hands of God, is incomparably better ordered than any machine that can be devised by man, and contains in itself movements more wonderful than those in any such machine.

I made special efforts to show that if any such machines had the organs and outward shape of a monkey or of some other animal that lacks reason, we should have no means of knowing that they did not possess entirely the same nature as these animals; whereas if any such machines bore a resemblance to our bodies and imitated our actions as closely as possible for all practical purposes, we should still have two very certain means of recognizing that they were not real men. The first is that they could never use words, or put together other signs, as we do in order to declare our thoughts to others. For we can certainly conceive of a machine so constructed that it utters words, and even utters words which correspond to bodily actions causing a change in its organs (e.g. if you touch it in one spot it asks what you want of it, if you touch it in another it cries out that you are hurting it, and so on). But it is not conceivable that such a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence, as the dullest of men can do. Secondly, even though such machines might do some things as well as we do them, or perhaps even better, they would inevitably fail in others, which would reveal that they were acting not through understanding but only from the disposition of their organs. For whereas reason is a universal instrument which can be used in all kinds of situations, these organs need some particular disposition for each particular action; hence it is for all practical purposes impossible for a machine to have enough different organs to make it act in all the contingencies of life in the way in which our reason makes us act.

Now in just these two ways we can also know the difference between man and beast. For it is quite remarkable that there are no men so dull-witted or stupid—and this includes even madmen—that they are incapable of arranging various words together and forming an utterance from them in order to make their thoughts understood; whereas there is no other animal, however perfect and well-endowed it may be, that can do the like. This does not happen because they lack the necessary organs, for we see that magpies and parrots can utter words as we do, and yet they cannot speak as we do: that is, they cannot show that they are thinking what they are saying. On the other hand, men born deaf and dumb, and thus deprived of speech-organs as much as the beasts or even more so, normally invent their own signs to make themselves understood by those who, being regularly in their company, have the time to learn their language. This shows not merely that the beasts have less reason than men, but that they have no reason at all. For it patently requires very little reason to be able to speak; and since as much inequality can be observed among the animals of a given species as among human beings, and some animals are more easily trained than others, it would be incredible that a superior specimen of the monkey or parrot species should not be able to speak as well as the stupidest child—or at least as well as a child with a defective brain—if their souls were not completely different in nature from ours. And we must not confuse speech with the natural movements which express passions and which can be imitated by machines as well as by ani-

mals. Nor should we think, like some of the ancients, that the beasts speak, although we do not understand their language. For if that were true, then since they have many organs that correspond to ours, they could make themselves understood by us as well as by their fellows. It is also a very remarkable fact that although many animals show more skill than we do in some of their actions, yet the same animals show none at all in many others; so what they do better does not prove that they have any intelligence, for if it did then they would have more intelligence than any of us and would excel us in everything. It proves rather that they have no intelligence at all, and that it is nature which acts in them according to the disposition of their organs. In the same way a clock, consisting only of wheels and springs, can count the hours and measure time more accurately than we can with all our wisdom.

After that, I described the rational soul, and showed that, unlike the other things of which I had spoken, it cannot be derived in any way from the potentiality of matter, but must be specially created. And I showed how it is not sufficient for it to be lodged in the human body like a helmsman in his ship, except perhaps to move its limbs, but that it must be more closely joined and united with the body in order to have, besides this power of movement, feelings and appetites like ours and so constitute a real man. Here I dwelt a little upon the subject of the soul, because it is of the greatest importance. For after the error of those who deny God, which I believe I have already adequately refuted, there is none that leads weak minds further from the straight path of virtue than that of imagining that the souls of the beasts are of the same nature as ours, and hence that after this present life we have nothing to fear or to hope for, any more than flies and ants. But when we know how much the beasts differ from us, we understand much better the arguments which prove that our soul is of a nature entirely independent of the body, and consequently that it is not bound to die with it. And since we cannot see any other causes which destroy the soul, we are naturally led to conclude that it is immortal.