SECOND MEDITATION

OF THE NATURE OF THE HUMAN MIND; THAT IT IS MORE EASILY KNOWN THAN THE BODY

Yesterday's meditation has plunged me into so many doubts that I still cannot put them out of my mind, nor, on the other hand, can I see any way to resolve them; but, as if I had suddenly slipped into a 24
deep whirlpool, I am in such difficulties that I can neither touch bottom with my foot nor swim back to the surface. Yet I will struggle on, and I will try the same path again as the one I set out on yesterday, that is to say, eliminating everything in which there is the smallest element of doubt, exactly as if I had found it to be false through and through; and I shall pursue my way until I discover something certain; or, failing that, discover that it is certain only that nothing is certain. Archimedes* claimed, that if only he had a point that was firm and immovable, he would move the whole earth; and great things are likewise to be hoped, if I can find just one little thing that is certain and unshakeable.

I therefore suppose that all I see is false; I believe that none of those things represented by my deceitful memory has ever existed; in fact I have no senses at all; body, shape, extension in space, motion,

and place itself are all illusions. What truth then is left? Perhaps this alone, that nothing is certain.

But how do I know that there is not something different from all those things I have just listed, about which there is not the slightest room for doubt? Is there not, after all, some God, or whatever he should be called, that puts these thoughts into my mind? But why should I think that, when perhaps I myself could be the source of these thoughts? But am I at least not something, after all? But I have already denied that I have any senses or any body. Now I am at a loss,
25 because what follows from this? Am I so bound up with my body and senses that I cannot exist without them? But I convinced myself that there was nothing at all in the world, no sky, no earth, no minds, no bodies. Did I therefore not also convince myself that I did not exist either? No: certainly I did exist, if I convinced myself of something.—But there is some deceiver or other, supremely powerful and cunning, who is deliberately deceiving me all the time.—Beyond doubt then, I also exist, if he is deceiving me; and he can deceive me all he likes, but he will never bring it about that I should be nothing as long as I think I am something. So that, having weighed all these considerations sufficiently and more than sufficiently, I can finally decide* that this proposition, 'I am, I exist', whenever it is uttered by me, or conceived in the mind, is necessarily true.

But indeed I do not yet sufficiently understand what in fact this 'I' is that now necessarily exists;* so that from now on I must take care in case I should happen imprudently to take something else to be me that is not me, and thus go astray in the very knowledge [*cognitione*] that I claim to be the most certain and evident of all. Hence I shall now meditate afresh on what I once believed myself to be, before I fell into this train of thought. From this I shall then subtract whatever it has been possible to cast doubt on, even in the slightest degree, by the reasons put forward above, so that in the end there shall remain exactly and only that which is certain and unshakeable.

So what in fact did I think I was before all this? A human being, of course. But what is a human being? Shall I say, 'a rational animal'?* No, for then I should have to examine what exactly an animal is, and what 'rational' is, and hence, starting with one question, I should stumble into more and more difficult ones. Nor do I now have so much leisure that I can afford to fritter it away on subtleties of this kind. But here I shall rather direct my attention to the thoughts that

spontaneously and by nature's prompting came to my mind before- 26
hand, whenever I considered what I was. The first was that I have a face, hands, arms, and this whole mechanism of limbs, such as we see even in corpses; this I referred to as the body. Next, that I took nourishment, moved, perceived with my senses, and thought: these actions indeed I attributed to the soul.* What this soul was, however, either I never considered, or I imagined it as something very rarefied and subtle, like a wind, or fire, or thin air, infused into my coarser parts. But about the body itself, on the other hand, I had no doubts, but I thought I distinctly knew its nature, which, if I had attempted to describe how I conceived it in my mind, I would have explained as follows: by body I mean everything that is capable of being bounded by some shape, of existing in a definite place, of filling a space in such a way as to exclude the presence of any other body within it; of being perceived by touch, sight, hearing, taste, or smell, and also of being moved in various ways, not indeed by itself, but by some other thing by which it is touched; for to have the power of moving itself, and also of perceiving by the senses or thinking, I judged could in no way belong to the nature of body; rather, I was puzzled by the fact that such capacities were found in certain bodies.

But what about now, when I am supposing that some deceiver, who is supremely powerful and, if I may venture to say so, evil, has been exerting all his efforts to delude me in every way? Can I affirm that I possess the slightest thing of all those that I have just said belong to the nature of body? I consider, I think, I go over it all in my 27
mind: nothing comes up. It would be a waste of effort to go through the list again. But what about the attributes I used to ascribe to the soul? What about taking nourishment or moving? But since I now have no body, these also are nothing but illusions. What about sense-perception? But certainly this does not take place without a body, and I have seemed to perceive very many things when asleep that I later realized I had not perceived. What about thinking? Here I do find something: it is thought; this alone cannot be stripped from me. I am, I exist, this is certain. But for how long? Certainly only for as long as I am thinking; for perhaps if I were to cease from all thinking it might also come to pass that I might immediately cease altogether to exist. I am now admitting nothing except what is necessarily true: I am therefore, speaking precisely, only a thinking thing, that is, a mind, or a soul, or an intellect, or a reason—words the meaning of

which was previously unknown to me. I am therefore a true thing, and one that truly exists; but what kind of thing? I have said it already: one that thinks.

What comes next? I will imagine: I am not that framework of limbs that is called a human body; I am not some thin air infused into these limbs, or a wind, or a fire, or a vapour, or a breath, or whatever I can picture myself as: for I have supposed that these things do not exist. But even if I keep to this supposition, nonetheless I am still something.*—But all the same, it is perhaps still the case that these very things I am supposing to be nothing, are nevertheless not distinct from this 'me' that I know* [*novi*].—Perhaps: I don't know. But this is not the point at issue at present. I can pass judgement only on those things that are known to me. I know [*novi*] that I exist; I am trying to find out what this 'I' is, whom I know [*novi*]. It is absolutely certain that this knowledge [*notitia*], in the precise sense in question
28 here, does not depend on things of which I do not yet know [*novi*] whether they exist; and therefore it depends on none of those things I picture in my imagination. This very word 'imagination' shows where I am going wrong. For I should certainly be 'imagining things' if I *imagined* myself to be anything, since imagining is nothing other than contemplating the shape or image of a bodily thing. Now, however, I know [*scio*] for certain that I exist; and that, at the same time, it could be the case that all these images, and in general everything that pertains to the nature of body, are nothing but illusions. Now this is clear to me, it would seem as foolish of me to say: 'I shall use my imagination, in order to recognize more clearly what I am', as it would be to say: 'Now I am awake, and I see something true; but because I cannot yet see it clearly enough, I shall do my best to get back to sleep again so that my dreams can show it to me more truly and more clearly.' And so I realize [*cognosco*] that nothing that I can grasp by means of the imagination has to do with this knowledge [*notitiam*] I have of myself, and that I need to withdraw my mind from such things as thoroughly as possible, if it is to perceive its own nature as distinctly as possible.

But what therefore am I? A thinking thing. What is that? I mean a thing that doubts, that understands, that affirms, that denies, that wishes to do this and does not wish to do that, and also that imagines and perceives by the senses.

Well, indeed, there is quite a lot there, if all these things really do belong to me. But why should they not belong to me? Is it not me who currently doubts virtually everything, who nonetheless understands something, who affirms this alone to be true, and denies the rest, who wishes to know more, and wishes not to be deceived, who imagines many things, even against his will, and is aware of many things that appear to come via the senses? Is there any of these things 29
that is not equally true as the fact that I exist—even if I am always asleep, and even if my creator is deceiving me to the best of his ability? Is there any of them that can be distinguished from my thinking? Is there any that can be said to be separate from me? For that it is I that am doubting, understanding, wishing, is so obvious that nothing further is needed in order to explain it more clearly. But indeed it is also this same I that is imagining; for although it might be the case, as I have been supposing, that none of these imagined things is true, yet the actual power of imagining certainly does exist, and is part of my thinking. And finally it is the same I that perceives by means of the senses, or who is aware of corporeal things as if by means of the senses: for example, I am seeing a light, hearing a noise, feeling heat.—But these things are false, since I am asleep!—But certainly I *seem to* be seeing, hearing, getting hot. This cannot be false. This is what is properly meant by speaking of myself as having sensations; and, understood in this precise sense, it is nothing other than thinking.

From all of this, I am indeed beginning to know [*nosse*] rather better what I in fact am. But it still seems (and I cannot help thinking this) that the bodily things of which the images are formed in our thought, and which the senses themselves investigate, are much more distinctly recognized than that part of myself, whatever it is, that cannot be represented by the imagination. Although, indeed, it is strange that things that I realize are doubtful, unknown, unrelated to me should be more distinctly grasped by me than what is true and what is known—more distinctly grasped even than myself. But I see what is happening. My mind enjoys wandering off the track, and will not yet allow itself to be confined within the boundaries of truth. Very well, then: let us, once again, slacken its reins as far as possible— 30
then, before too long, a tug on them at the right moment will bring it more easily back to obedience.*

Let us consider those things which are commonly thought to be more distinctly grasped than anything else: I mean the bodies we

touch and see; but not bodies in general, for these general perceptions are usually considerably more confused, but one body in particular. Let us, for example, take this wax: it has only just been removed from the honeycomb; it has not yet lost all the flavour of its honey; it retains some of the scent of the flowers among which it was gathered; its colour, shape, and size are clearly visible; it is hard, cold, easy to touch, and if you tap it with your knuckle, it makes a sound. In short, it has all the properties that seem to be required for a given body to be known as distinctly as possible. But wait—while I am speaking, it is brought close to the fire. The remains of its flavour evaporate; the smell fades; the colour is changed, the shape is taken away, it grows in size, becomes liquid, becomes warm, it can hardly be touched, and now, if you strike it, it will give off no sound. Does the same wax still remain? We must admit it does remain: no one would say or think it does not. So what was there in it that was so distinctly grasped? Certainly, none of those qualities I apprehended by the senses: for whatever came under taste, or smell, or sight, or touch, or hearing, has now changed: but the wax remains.

Perhaps the truth of the matter was what I now think it is: namely, that the wax itself was not in fact this sweetness of the honey, or the fragrance of the flowers, or the whiteness, shape, or sonority, but the body which not long ago appeared to me as perceptible in these modes,* but now appears in others. But what exactly is this that I am
31 imagining in this way? Let us consider the matter, and, thinking away those things that do not belong to the wax, let us see what remains. Something extended, flexible, mutable: certainly, that is all. But in what do this flexibility and mutability consist? Is it in the fact that I can imagine this wax being changed in shape, from a circle to a square, and from a square into a triangle? That cannot be right: for I understand that it is capable of innumerable changes of this sort, yet I cannot keep track of all these by using my imagination. Therefore my understanding of these properties is not achieved by using the faculty of imagination. What about 'extended'? Surely I know something about the nature of its extension. For it is greater when the wax is melting, greater still when it is boiling, and greater still when the heat is further increased. And I would not be correctly judging what the wax is if I failed to see that it is capable of receiving more varieties, as regards extension, than I have ever grasped in my imagination. So I am left with no alternative, but to accept that I am

not at all *imagining* what this wax is, I am perceiving it with my mind alone: I say 'this wax' in particular, for the point is even clearer about wax in general. So then, what is this wax, which is only perceived by the mind? Certainly it is the same wax I see, touch, and imagine, and in short it is the same wax I judged it to be from the beginning. But yet—and this is important—the perception of it is not sight, touch, or imagination, and never was, although it seemed to be so at first: it is an inspection by the mind alone, which can be either imperfect and confused, as it was before in this case, or clear and distinct, as it now is, depending on the greater or lesser degree of attention I pay to what it consists of.

But in the meantime I am amazed by the proneness of my mind to error. For although I am considering all this in myself silently and without speech, yet I am still ensnared by words themselves, and all 32
but deceived by the very ways in which we usually put things. For we say that we 'see' the wax itself, if it is present, not that we judge it to be there on the basis of its colour or shape. From this I would have immediately concluded that I therefore knew the wax by the sight of my eyes, not by the inspection of the mind alone—if I had not happened to glance out of the window at people walking along the street. Using the customary expression, I say that I 'see' them, just as I 'see' the wax. But what do I actually see other than hats and coats, which could be covering automata?* But I judge that they are people. And therefore what I thought I saw with my eyes, I in fact grasp only by the faculty of judging that is in my mind.

But one who desires to know more than the common herd might be ashamed to have gone to the speech of the common herd to find a reason for doubting. Let us then go on where we left off by considering whether I perceived more perfectly and more evidently what the wax was, when I first encountered it, and believed that I knew [*cognoscere*] it by these external senses, or at least by what they call the 'common sense',* that is, the imaginative power; or whether I perceive it better now, after I have more carefully investigated both what it is and how it is known [*cognoscatur*]. Certainly it would be foolish to doubt that I have a much better grasp of it now. For what, if anything, was distinct in my original perception? What was there, if anything, that seemed to go beyond the perception of the lowest animals?* But on the other hand, when I distinguish the wax from its external forms, and, as if I had stripped off its garments, consider it in all its

nakedness, then, indeed, although there may still be error in my judgements, I cannot perceive it in this way except by the human mind.

33 But what, then, shall I say about this mind, or about myself? For I do not yet accept that there is anything in me but a mind. What, I say, am I who seem to perceive this wax so distinctly? Do I not know [*cognosco*] myself not only much more truly, much more certainly, but also much more distinctly and evidently than the wax? For, if I judge that the wax exists, for the reason that I see it, it is certainly much more evident that I myself also exist, from the very fact that I am seeing it. For it could be the case that what I am seeing is not really wax; it could be the case that I do not even have eyes with which to see anything; but it certainly cannot be the case, when I see something, or when I think I am seeing something (the difference is irrelevant for the moment), that I myself who think should not be something. By the same token, if I judge that the wax exists, for the reason that I am touching it, the same consequence follows: namely, that I exist. If I judge it exists, for the reason I am imagining it, or for any other reason, again, the same certainly applies. But what I have realized in the case of the wax, I can apply to anything that exists outside myself. Moreover, if the perception of the wax appeared more distinct after it became known to me from many sources, and not from sight or touch alone, how much more distinctly—it must be admitted—I now know [*cognosci*] myself. For there are no reasons that can enhance the perception either of the wax or of any other body at all that do not at the same time prove better to me the nature of my own mind. But there are so many things besides in the mind itself that can serve to make the knowledge [*notitia*] of it more distinct, that there seems scarcely any point in listing all the perceptions that flow into it from the body.

34 But I see now that, without realizing it, I have ended up back where I wanted to be. For since I have now learned that bodies themselves are perceived not, strictly speaking, by the senses or by the imaginative faculty, but by the intellect alone, and that they are not perceived because they are touched or seen, but only because they are understood, I clearly realize [*cognosco*] that nothing can be perceived by me more easily or more clearly than my own mind. But since a long-held opinion is a habit that cannot so readily be laid aside, I intend to stop here for a while, in order to fix this newly acquired knowledge more deeply in my memory by long meditation.

SIXTH MEDITATION

OF THE EXISTENCE OF MATERIAL THINGS, AND THE REAL DISTINCTION BETWEEN MIND AND BODY

It remains for me to examine whether material things exist. And indeed, I now know [*scio*] at least that, in so far as they are the object of pure mathematics, they can exist, since I perceive them clearly and distinctly. For there is no doubt that God is capable of producing everything I am capable of perceiving in this way; and I have never judged that anything was impossible for him to do, except when, in attempting to perceive it distinctly, I ran up against a contradiction. Besides, it seems to follow from the existence of the imaginative faculty, of which I experience myself as making use when dealing with these material things, that they exist. For if I consider more closely what kind of thing the imagination is, it appears to be nothing other than a certain application of the knowing faculty to a body intimately present to that faculty, and therefore existing. 72

To make this plain, I shall first examine the difference that exists between imagination and pure intellection. For example, when I imagine a triangle, not only do I understand it to be a shape enclosed by three lines, but at the same time, with the eye of the mind, I contemplate the three lines as present, and this is what I call imagining. But if, on the other hand, I wish to think of a chiliogon, I do indeed understand that this is a shape consisting of a thousand sides, no less clearly than I understand that the triangle consists of three: but I do not imagine the thousand sides in the same way, that is, contemplate them as present. And although at the time, because I am accustomed always to imagine something whenever I am thinking of bodily things, I may perhaps picture some figure to myself in a confused fashion, it is quite clear that this is not a chiliogon,

because it is not at all different from the picture I would also form in my mind if I were thinking about a myriogon,* or some other many-sided figure. Nor is it of any assistance in recognizing the properties by which the chiliogon differs from other polygons. But if I am dealing with a pentagon, I can certainly understand its shape, like that of the chiliogon, without the help of the imagination: but I can also imagine it, that is, by applying the eye of the mind to its five sides, and at the same time to the area contained within them; and here I observe very plainly that I need to make a particular
73 mental effort in order to imagine, that I do not make when understanding. This further effort of the mind clearly indicates the difference between imagination and pure intellection.

At this point, I consider that this power of imagining I possess, in so far as it differs from the power of understanding, is not integral to my essence, that is, to the essence of my mind; for even if I lacked it, I should nonetheless certainly remain the same person as I now am. From this it seems to follow that the imagination depends on something distinct from me.* And I can easily understand that if some body exists to which the mind is so closely joined that it may, whenever it chooses, apply itself, so to speak, to looking into it, it could be the case that this is exactly how I imagine corporeal things. So that this mode of thinking would differ from pure intellection in the following respect alone: that the mind, while it understands, turns itself in some way towards itself, and gazes on one of the ideas that are contained within itself; but, while it imagines, it turns itself towards the body, and considers something in it that corresponds either to an idea it understands itself* or to an idea perceived by the senses. I can readily understand, I say, how the imagination may function in this way, provided, that is, the body exists. And because no other equally convenient way of explaining it occurs to me, I therefore conclude with great probability that the body exists. But this is only a probability, and although I am investigating the whole matter with great care, I do not yet see that, from this distinct idea of bodily nature that I find in my imagination, any argument can be derived that will lead necessarily to the conclusion that some body exists.

74 But I am accustomed to imagining many other things, besides this bodily nature that is the object of pure mathematics,* such as colours, sounds, pain, and suchlike: but none of these with equal distinctness.

And because I perceive these things better by the senses, from which they seem to have made their way, with the help of memory, to the imagination, in order to examine them more conveniently, I should examine sensation at the same time, and see whether, from those things that are perceived by the form of thinking I call 'sensation', I can derive some decisive argument in favour of the existence of bodily things.

And first of all, I will here go over in my memory what those things were that I previously thought were true, because they were perceived by the senses, and the reasons I had for thinking this. Then I shall weigh the reasons for which I later called these things into question. Finally, I shall consider what view I should now take.

First of all, then, I had the sensation of having a head, hands, feet, and all the other parts comprising this body I used to consider as part of myself, or perhaps even as the whole of myself. Then I had the sensation of this body as situated among many other bodies by which it could be affected—harmed or benefited: and I measured the benefits by a certain feeling of pleasure and the harm by a feeling of pain. And besides pain and pleasure, I also had the sensation of hunger, thirst, and other such appetites in myself, not to mention various bodily propensities, to joy, to sadness, to anger, and other such passions. Outside myself, besides the extension, shapes, and motions of bodies, 75
I had sensations of hardness, heat, and other tactile qualities in them; light, as well, and colours, and smells, and tastes, and sounds, the variety of which enabled me to distinguish the sky, the earth, the sea, and other bodies one from another. And surely it was not without reason that, on account of the ideas of all these qualities that presented themselves to my thought, and of which alone I had personal and immediate sensations, I believed I was sensing certain things quite distinct from my thought, that is to say, bodies from which these ideas proceeded. For I experienced these ideas as coming to me without any consent of mine: so much so, that neither could I have a sensation of any object, however much I wanted to, unless the object itself were present to a sense-organ, nor could I help having the sensation of it when it was present. And since the ideas perceived by the senses were much more vivid and emphatic,* and in their own way more distinct, than any of the ideas that I deliberately and knowingly formed* by myself in my meditations, or that I found engraved upon my memory, it seemed impossible that they should proceed from myself.* And so

it had to be the case that they derived from some other things. But since I had no knowledge of these other things except from these ideas themselves, I could only suppose that the things were like the ideas. And also because I remembered that I had made use of my senses before I made use of my reason, and saw, as well, that the ideas I formed myself were not as emphatic as those I perceived by the senses, and were mostly put together from those ideas, I readily convinced myself that I had nothing at all in the intellect, that I had not previously had in the senses.* Nor was it without reason that I judged that the par-
76 ticular body I seemed specially entitled to call my own belonged more closely to me than any other body. For I could not ever be separated from it, as I could from the other bodies; I felt all my appetites and passions in it and for it; and finally I was aware of pain and pleasure in parts of it, but not in any other body existing outside it. But why this mysterious feeling of pain is followed by a feeling of sadness in the soul, and why the awareness of pleasure is followed by joy, or why the mysterious pangs in the stomach I call hunger prompt me to take food, while a dryness in the throat prompts me to drink, and so on, I certainly could not explain except by saying that nature teaches me that it is so. For there is plainly no affinity (at least, none that I understand) between the pangs in the stomach and the will to eat, or between the sensation of a thing that is causing pain and a thought of sadness arising from this feeling. And all the other things I judged concerning the objects of the senses, I thought I had also learned from nature. For I had persuaded myself that this was the way things were before I had considered any reasons by which this could be proved.

But afterwards many experiences gradually undermined all the faith I had placed in the senses. For sometimes towers that from a distance had seemed round appeared from close up as square;* and giant statues perched on the top of those towers did not look particularly large to one gazing up from below; and by innumerable other such experiences I came to realize that in matters of the external senses our judgements are at fault. Not only the internal senses,
77 moreover; the internal ones as well. For what can be more intimate than pain? Yet I had often heard from people whose arm or leg had been amputated, that they still occasionally seemed to feel pain in the part of the body they were missing; and therefore even in myself it did not seem to be wholly certain that one of my limbs was hurting, even though I was feeling pain in it. To these points I recently added

two very general reasons for doubting. The first was that everything I have ever believed I was having a sensation of while awake, I can sometimes think I am having a sensation of while asleep; and since I do not believe that what I seem to see when asleep comes from anything existing outside me, I could not see any reason why I should believe this of the sensations I seem to have when awake. The second reason was that, since I was still ignorant of the author of my existence (or at least was pretending to be so),* I could see no reason why I could not be so constituted by nature as to be deceived, even in things that appeared to me entirely true. And as for the reasons by which I had previously convinced myself of the truth of sensible things, I could answer them without difficulty. For since I saw that I was impelled by nature to many things from which reason dissuaded me, I thought I should not place much faith in the teachings of nature. And although sense-perceptions do not depend on my will, I thought that I should not therefore conclude that they derived from things distinct from myself, because perhaps there might be some faculty within me, although yet unknown to me, that produces them.

Now, however, that I begin to know myself and the author of my existence rather better, although I do not think that all that the senses seem to teach me is to be rashly accepted, I do not think that it 78
should all be called in doubt.

First, since I know that whatever I clearly and distinctly understand can be produced by God such as I understand it to be, then if I can clearly and distinctly understand one thing without another, this is sufficient for me to be certain that the one is distinct from the other, since they can at least be produced separately by God. By what power this separation comes about makes no difference to the judgement that the things are distinct. Next, from the very fact that I know [*sciam*] I exist, and that for the moment I am aware of nothing else at all as belonging to my nature or essence, apart from the single fact that I am a thinking thing, I rightly conclude that my essence consists in this alone, that I am a thinking thing. And although perhaps (or rather certainly, as I shall shortly claim) I have a body, which is very closely conjoined to me, yet because, on the one hand, I have a clear and distinct idea of myself, in so far as I am a thinking and not an extended thing, and, on the other, a distinct idea of the body, in so far as it is only an extended and not a thinking thing, it is certain that I am really distinct from my body,* and can exist without it.

Moreover, I find in myself faculties of thinking in various specific ways—namely, the faculties of imagination and sensation—without which I can understand myself clearly and distinctly as a whole. But the converse is not true—I cannot understand them apart from an intelligent substance in which they inhere (for they contain a certain degree of intellection in their formal concept).* Hence I perceive that they are to be distinguished from me as modes are from a thing.* I also recognize various other faculties, such as those of changing place, and assuming various postures, that cannot be understood
79 (any more than those just mentioned) without some substance in which to inhere, and that therefore cannot exist without it. But it is plain that, if indeed these exist, they must inhere in a bodily or extended substance—but not, however, an intelligent one; for the clear and distinct concept of them includes some measure of extension, but does not at all include intellection. Moreover, there is in me a certain passive faculty of sensation, that is, of receiving and knowing [*cognoscendi*] ideas of sensible things. But I could make no use of it at all, if there did not exist, either in me or in another being, some active faculty of producing or generating these ideas. Now this faculty cannot, certainly, exist in myself,* because it presupposes no intellection at all, and because these ideas are produced not only without my cooperation but often even against my will.* It therefore follows that it must exist in some substance distinct from me, which substance must contain, either formally or eminently, all the reality that exists objectively in the ideas produced by the faculty (as I have already pointed out above).* This substance is either a body, or a bodily nature, that formally contains all that is contained objectively in the ideas; or else it has to be God, or some other creature nobler than a body, in which this is contained eminently. But because God is no deceiver, it is altogether plain that he does not transmit these ideas to me immediately, or by the intermediary of some creature, in whom their objective reality is contained not formally but only eminently. For since he has certainly given me no faculty by which I might realize this to be true, but has, on the contrary, endowed me
80 with a strong propensity to believe that these ideas are conveyed by bodily things, I cannot see how, if they were in fact from some other source, it would be possible to think of him except as a deceiver. And therefore bodily things exist. Perhaps, however, they do not all exist exactly as I apprehend them by the senses, since this

sensory apprehension is very obscure and confused in many respects. But at least all those properties are in them that I clearly and distinctly understand: that is, all those, generally considered, that are included in the object of pure mathematics.*

As to the remaining properties that are either purely particular (for instance, the sun's being of a certain magnitude or shape) or less clearly understood (for instance, light, sound, pain, and suchlike), although they are very doubtful and uncertain, yet this basic fact, that God is no deceiver, and that therefore it cannot be the case that any falsity should be found in my opinions, unless there is also some God-given faculty in me for correcting it, offers me a firm hope of discovering the truth with respect to them as well. And certainly, there is no doubt that everything I am taught by nature contains some element of truth: for by nature, in a general sense, I now mean nothing other than either God himself, or the system of created things established by God; and by my own nature in particular, I mean nothing other than the combination of all the properties bestowed on me by God.

Now there is nothing I am more emphatically taught by this nature of mine than that I have a body, with which there is something wrong when I feel pain, which needs food or drink, when I experience hunger or thirst, and so on and so forth. Hence I cannot doubt that there is some truth in all this.

Nature likewise teaches me, through these very feelings of pain, 81
hunger, thirst, and so forth, that I am not present in my body only as a pilot is present in a ship,* but that I am very closely conjoined to it and, so to speak, fused with it, so as to form a single entity with it. For otherwise, when the body is injured, I, who am nothing other than a thinking thing, would not feel pain as a result, but would perceive the injury purely intellectually, as the pilot perceives by sight any damage occurring to his ship; and when the body lacks food or drink, I would understand this explicitly, instead of having confused feelings of hunger and thirst. For certainly, these feelings of thirst, hunger, pain, and so forth are nothing other than certain confused modes of thinking, arising from the union and, so to speak, fusion of the mind with the body.

Besides, I am further taught by nature that various other bodies exist around mine: of these, some are to be pursued by me, others avoided. And certainly, from the fact that I perceive very different

colours, sounds, smells, tastes, degrees of heat, of hardness, and suchlike, I can validly conclude that in the bodies from which these varied sensory perceptions arise there are variations that correspond to them, even if, perhaps, they do not resemble them. And from the fact that some of these perceptions are pleasing to me, others displeasing, it is quite certain that my body, or rather myself as a whole, in so far as I am composed of a body and a mind, can be benefited or harmed by the surrounding bodies.

82 But there are many other beliefs that, although I seem to be taught them by nature, I have in fact derived not from nature itself, but from a certain habit of judging without due consideration, and so these can easily turn out to be false. For instance, that every space in which nothing at all is happening that has an impact on my senses is a vacuum;* or that in a body that is hot, say, there is something altogether similar to the idea of heat in me; that in a white or green body, there is the same whiteness or greenness of which I have the sensation, in one that is bitter or sweet the same taste, and so on and so forth;* that stars and towers and whatever other distant bodies one can think of are only of the same size and shape as they appear to be to my senses, and so on. But there is a risk I may fail to perceive this matter sufficiently clearly if I do not first define more precisely what exactly I mean when I say that I am taught something by nature. Here I am taking 'nature' in a more restricted sense than when I use the term to denote the combination of all the properties bestowed on me by God. For in this combination there are many things that belong to the mind alone, such as my perception that what has happened cannot not have happened, and all the other things that I know by the natural light. These are not my concern here. There are also many that relate to the body alone, as that it has a tendency to fall downwards,* and suchlike. But I am not here concerned with these either, only with those things bestowed by God on me, as a composite of mind and body. Now nature in this sense teaches us to avoid those things that cause a sensation of pain, and pursue those that produce a sensation of pleasure, and so forth. But it does not appear that nature teaches us anything else that would enable us to reach any conclusion, on the basis of these sensory perceptions, about things existing outside ourselves, without a prior examination by the intel-
83 lect; because it seems that a true knowledge [*scire*] of these belongs to the mind alone, but not to the composite entity. Thus, although a

star affects my eye no more than the gleam of a small torch, there is no real or positive inclination here to believe that the star is no bigger than the torch:* but I formed this belief in childhood without any reason to support it. And although when I come close to the fire I feel heat, and in fact I feel pain when I come too close to it, there is certainly no reason that should persuade me that there is something in the fire like the heat, any more than there is something in it like the pain—only that there is something in the fire, whatever in fact it is, that produces these feelings of heat or pain. Again, although in a given space there may be nothing that affects the senses, it does not therefore follow that there is no body in it. But I see that in these, and in very many other things, I have grown accustomed to perverting the order of nature, because I use sensory perceptions, which were specifically given by nature for signifying to the mind* what things are beneficial or harmful to the composite of which the mind is part—for which purpose they are sufficiently clear and distinct—as if they were reliable criteria for immediately discerning the essence of bodies existing outside us. Of this, however, they signify nothing, except in very obscure and confused fashion.

But I have already sufficiently examined how it can come to pass that, notwithstanding the goodness of God, my judgements are false. A further difficulty, however, arises here concerning these very things that are represented to me by nature as to be pursued or avoided, and concerning also the internal senses in which I seem to have discovered errors: as when someone, tricked by the pleasant taste of some food, absorbs a poison concealed in it. But in this case 84
he is prompted by nature to desire only the source of the pleasant taste, not the poison of which he knows nothing. And nothing more is to be inferred from this than that this nature is not omniscient; which is not surprising, since, man being a limited creature, the only nature he can be endowed with is one of limited perfection.

But yet we do quite frequently go astray even in things to which we are impelled by nature: as when sick people desire drink or food that will shortly do them harm. Someone might say here that they are led astray only because their nature has been corrupted:* but this does not remove the difficulty, because in truth, a sick human being is just as much a creature of God as a healthy one. And so it seems just as contrary to the goodness of God that his nature should be deceptive. Now a clock, an assembly of wheels and weights, obeys all the laws of

nature just as strictly when it has been badly manufactured and does not tell the time accurately as when it fulfils the clockmaker's wishes in every respect. And I can likewise consider the body of a human being as a kind of machine made up of bones, nerves, muscles, veins, blood, and skin so fitted together that, even if there were no mind within it, it would still have all the movements it currently has that do not result from the command of the will (and hence the mind). I can easily see that it would be natural, if, for example, the body were suffering from dropsy, for it to experience the dryness of the throat that usually communicates the sensation of thirst to the mind, so that, as a result, its nerves and other parts would be so disposed that it would have something to drink, thus making the disease worse; just as natural as it would be for a perfectly healthy body to be prompted
85 by a similar dryness in the throat to take a drink that would do it good. And although, if we take into account the intended function of the clock, we can say that, when it fails to indicate the time correctly, it has fallen away from its nature; and likewise, if we consider the machine of the human body as designed so as to enable the movements that usually take place in it, I may think that it has gone astray from its own nature if its throat is dry at a time when drink will not conduce to its preservation, yet I can see perfectly clearly that this latter meaning of 'nature' is quite different from the former. For the latter meaning is nothing more than a denomination* dependent on my thinking, when I compare a sick human being and a badly made clock with my idea of a healthy human being and a well-made clock, and it tells us nothing about the actual things in question; whereas by the former I mean something that is actually found in the things themselves, and therefore contains a degree of truth.

But certainly, even though, when considering the body suffering from dropsy, to speak of its nature being corrupted, on the grounds that its throat is dry and yet it does not need to drink, is merely an extrinsic denomination; yet if we consider the composite entity, that is, the mind as united to a body in this state (thirsty when drink would be harmful to it), this is not a pure denomination, but a genuine error of nature.* And so the question refuses to go away, how it is that the goodness of God does not prevent nature in this precise sense from being deceptive.

Now, first of all, I observe here that there is a great difference between the mind and the body, in this respect, that the body of its

nature is endlessly divisible, but the mind completely indivisible: for 86
certainly, when I consider the mind, or myself in so far as I am purely a thinking thing, I can distinguish no parts in myself but understand myself to be a thing that is entirely one and complete. And although the whole mind appears to be united with the whole body, if the foot is cut off, or the arm, or any other part of the body, I know [*cognosco*] that nothing is therefore subtracted from the mind. Nor can the faculties of willing, perceiving by the senses, understanding, and so forth be said to be parts of the mind, since it is one and the same mind that wills, that senses, and that understands. On the other hand, however, no bodily or extended thing can be thought by me that I cannot mentally divide into parts, without any difficulty; and I therefore understand it is divisible. This point alone would suffice to show me that the mind is altogether distinct from the body, if I did not yet sufficiently know [*scirem*] this for other reasons.

Next, I observe that the mind is not affected immediately by all the parts of the body, but only by the brain, or perhaps only by one very small part of the brain, namely that in which the 'common sense' is said to reside.* Whenever this part is affected in the same way, it represents the same thing to the mind, even if the other parts of the body happen to be differently affected at the same time. This is proved by innumerable observations* [*experimenta*] that there is no need to go into here.

Moreover, I observe that it is of the nature of a body that none of its parts can be moved by another part somewhat distant from it, without its being able to be moved in the same way by any of the parts that lie between them, even when the more distant part is not involved in the movement. For instance, take a piece of string, with points A, B, C, and D. If the last part, D, is pulled, the first part, A, 87
will be moved in exactly the same way as it would be moved if one of the intermediate points, B or C, were pulled, while the final point, D, remained immobile. By the same token, when I feel a pain in the foot, physics* teaches me that this sensation is produced by means of the nerves dispersed through the foot, which, since they extend upwards like strings as far as the brain, when plucked in the foot also pluck the inmost parts of the brain in which they terminate, thus stimulating a particular motion in these parts of the brain, which is so ordained by nature that it affects the mind with a feeling of pain apparently located in the foot. But because these nerves have to pass up the leg,

the thigh, the loins, the back, and the neck in order to connect the foot and the brain, it can come about that, even if the part of the nerve that is in the foot is not affected, but only one of the intermediate parts, exactly the same movement will take place in the brain as takes place when the foot is injured, so that the mind will necessarily experience the same pain. And the same must apply to all our other sensations.

Finally, I observe that, since each one of the motions that take place in the part of the brain that directly affects the mind produces only one sensation in the mind, no better explanation of this can be conceived than that the particular movement produces, of all the possible sensations it could produce, the sensation that most effectively and most frequently conduces to the preservation of the human being in good health. And experience bears witness that this applies to all the sensations with which nature has endowed us, and that therefore nothing at all can be found in them that does not bear
88 witness to God's immense power and goodness. Thus, for instance, when the nerves in the foot are violently and unusually stimulated, their movement, transmitted through the spinal cord to the inner parts of the brain, there gives a signal to the mind to experience a certain sensation, namely a pain experienced as being in the foot. By this the mind is stimulated to do its best to remove the cause of the pain, as being damaging to the foot. To be sure, the nature of man could have been so established by God that this same motion in the brain could have represented something different to the mind: it could have represented itself, in so far as it takes place in the brain, or in so far as it takes place in the foot, or in any of the places in between, or it could have represented something else altogether;* but nothing else would have been so conducive to the body's preservation. In the same way, when we need to drink, a certain dryness originates in the throat, setting in motion the nerves there, and by their means the inner parts of the brain; and this motion affects the mind with the sensation of thirst, because in this situation there is nothing more useful to us to know than that we need a drink for the sake of preserving our health. And the same applies with all our other sensations.

From all this, it is entirely plain that, notwithstanding God's immense goodness, the nature of man, as a composite of mind and body, cannot but be liable to error at times. For if some cause not in the foot, but in some one of the other parts through which the nerves

run on their way from the foot to the brain, or indeed in the brain itself, stimulates the very same motion as is usually stimulated by some injury to the foot, a pain will be felt as if in the foot, and our sense will be naturally deceived. This is because, since one and the same movement in the brain can only produce one and the same sensation in the mind, and since it is much more usually produced by some cause injuring the foot than by any other cause located somewhere else, it is in accordance with reason that it should always 89
represent to the mind a pain in the foot rather than in any other part. And if sometimes a dryness in the throat arises, not from its usual cause, which is that the body's health would be benefited by drinking, but from some other, contrary cause, as happens with those suffering from dropsy, it is better that it should deceive us in this latter case, than that, on the contrary, it should always deceive us when the body is healthy. And the same applies elsewhere.

And this consideration will assist me greatly, not only to be aware of all the errors to which my nature is liable, but also to correct or avoid them easily. For certainly, since I know [*sciam*] that all our sensations indicate the truth far more frequently than the contrary, as far as the well-being of the body is concerned, and since in examining a particular case I can almost always draw on several of them, as well as on my memory, which connects present with past, and on my understanding, which has already discovered all the causes of error, I need no longer fear that the things the senses represent to me in ordinary life are false: on the contrary, the hyperbolic doubts of these past days can be dismissed as ridiculous. Especially the ultimate doubts concerning sleeping, which I could not distinguish from waking; for now I realize that there is a massive difference between them, inasmuch as dreams are never combined by my memory with the rest of the actions of my life, as happens with my waking experiences. For certainly if, while I was awake, someone suddenly appeared before me, and then immediately disappeared, as happens in dreams, in such a way, I mean, that I could not see where he was coming from or where he was going, I would not unreasonably judge it to 90
be an apparition or a delusion produced by my brain, rather than a real person. But when things happen to me in such a way that I am distinctly aware of whence, where, and when they have come, and I connect the perception of them to the rest of my life, without any gaps, then I am well and truly certain that they are happening not in

my sleep but when I am awake. Nor should I doubt even in the slightest degree of their truth, if after I have summoned all the senses, the memory, and the understanding to join in their examination, none of these reports anything that clashes with the report of the rest. For, from the fact that God is not a deceiver, it follows inescapably that in such cases I am not deceived. But because the necessities of action do not always allow us the opportunity for such a thorough examination, we must admit that human life is subject to frequent error in connection with particular things, and we must acknowledge the frailties of our nature.*