## OF THOSE THINGS THAT MAY BE CALLED INTO DOUBT

It is some years now since I realized how many false opinions I had accepted as true from childhood onwards,\* and that, whatever I had since built on such shaky foundations, could only be highly doubtful. Hence I saw that at some stage in my life the whole structure would have to be utterly demolished, and that I should have to begin again from the bottom up if I wished to construct something lasting and unshakeable in the sciences. But this seemed to be a massive task, and so I postponed it until I had reached the age when one is as fit as one will ever be to master the various disciplines. Hence I have delayed so long that now I should be at fault if I used up in deliberating the time that is left for acting. The moment has come, and so today I have discharged my mind from all its cares, and have carved out a space of untroubled leisure. I have withdrawn into seclusion and shall at last be able to devote myself seriously and without encumbrance to the task of destroying all my former opinions.

To this end, however, it will not be necessary to prove them all false—a thing I should perhaps never be able to achieve. But since reason already persuades me that I should no less scrupulously withhold my assent from what is not fully certain and indubitable than from what is blatantly false, then, in order to reject them all, it will be sufficient to find some reason for doubting each one. Nor shall I therefore have to go through them each individually, which would be an endless task: but since, once the foundations are undermined, the building will collapse of its own accord, I shall straight away attack the very principles that form the basis of all my former beliefs.

Certainly, up to now whatever I have accepted as fully true I have learned either from or by means of the senses: but I have discovered that they sometimes deceive us, and prudence dictates that we should never fully trust those who have deceived us even once.

But perhaps, although they sometimes deceive us about things that are little, or rather a long way away, there are plenty of other things of which there is clearly no doubt, although it was from the senses that we learned them: for instance, that I am now here, sitting by the fire, wrapped in a warm winter gown, handling this paper, and suchlike. Indeed, that these hands themselves, and this whole body are mine—what reason could there be for doubting this? Unless perhaps I were to compare myself to one of those madmen, whose little brains have been so befuddled by a pestilential vapour arising from the black bile,\* that they swear blind that they are kings, though they are beggars, or that they are clad in purple, when they are naked, or that their head is made of clay, or that their whole body is a jug, or made entirely of glass. But they are lunatics, and I should seem no less of a madman myself if I should follow their example in any way.

This is all very well, to be sure. But am I not a human being, and therefore in the habit of sleeping at night, when in my dreams I have all the same experiences as these madmen do when they are awake—or sometimes even stranger ones? How often my sleep at night has convinced me of all these familiar things—that I was here, wrapped in my gown, sitting by the fire—when in fact I was lying naked under the bedclothes.—All the same, I am now perceiving this paper with eyes that are certainly awake; the head I am nodding is not drowsy; I stretch out my hand and feel it knowingly and deliberately; a sleeper would not have these experiences so distinctly.—But have I then forgotten those other occasions on which I have been deceived by similar thoughts in my dreams? When I think this over more carefully I see so clearly that waking can never be distinguished from sleep by any conclusive indications that I am stupefied; and this very stupor comes close to persuading me that I am asleep after all.

Let us then suppose\* that we are dreaming, and that these particular things (that we have our eyes open, are moving our head, stretching out our hands) are not true; and that perhaps we do not even have hands or the rest of a body like what we see. It must nonetheless be admitted that the things we see in sleep are, so to speak, painted images, which could not be formed except on the basis of a resemblance with real things; and that for this reason these general things at least (such as eyes, head, hands, and the rest of the body) are not imaginary things, but real and existing. For the fact is that when painters desire to represent sirens and little satyrs with utterly unfamiliar shapes, they cannot devise altogether new natures for them, but simply combine parts from different animals; or if perhaps they do think up something so new that nothing at all like it has ever been seen, which is thus altogether fictitious and false, it is certain that at

least the colours which they combine to form images must be real. By the same token, even though these general things—eyes, head, hands, and so forth—might be imaginary, it must necessarily be admitted that at least some other still more simple and universal realities must exist, from which (as the painter's image is produced from real colours) all these images of things—be they true or false—that occur in our thoughts are produced.

In this category it seems we should include bodily nature in general, and its extension; likewise the shape of extended things and their quantity (magnitude and number); likewise the place in which they exist, the time during which they exist, and suchlike.

From all this, perhaps, we may safely conclude that physics, astronomy, medicine, and all the other disciplines which involve the study of composite things are indeed doubtful; but that arithmetic, geometry, and other disciplines of the same kind, which deal only with the very simplest and most general things, and care little whether they exist in nature or not, contain something certain and indubitable. For whether I am waking or sleeping, two plus three equals five, and a square has no more than four sides; nor does it seem possible that such obvious truths could be affected by any suspicion that they are false.

However, there is a certain opinion long fixed in my mind, that there is a God who is all-powerful, and by whom I was created such as I am now. Now how do I know that he has not brought it about that there is no earth at all, no heavens, no extended things, no shape, no magnitude, no place—and yet that all these things appear to me to exist just as they do now?\* Or even—just as I judge now and again that other people are mistaken about things they believe they know with the greatest certitude—that I too should be similarly deceived whenever I add two and three, or count the sides of a square, or make a judgement about something even simpler, if anything simpler can be imagined?

But perhaps God has not willed that I should be so cheated, for he is said to be supremely good.—But if it were incompatible with his goodness to have created me such that I am perpetually deceived, it would seem equally inconsistent with that quality to permit me to be sometimes deceived. Nonetheless, I cannot doubt that he does permit it.

Perhaps, indeed, there might be some people who would prefer to deny the existence of any God so powerful, rather than believing that all other things are uncertain. But let us not quarrel with them, and let us grant that all this we have said of God is only a fiction; and let them suppose that it is by fate or chance or a continuous sequence of things that I have come to be what I am. Since, though, to be deceived and to err appear to be some kind of imperfection, the less powerful the source they invoke to explain my being, the more probable it will be that I am so imperfect that I am perpetually deceived. To all these arguments, indeed, I have no answer, but at length I am forced to admit that there is nothing of all those things I once thought true, of which it is not legitimate to doubt—and not out of any thoughtlessness or irresponsibility, but for sound and well-weighed reasons; and therefore that, from these things as well, no less than from what is blatantly false, I must now carefully withhold my assent if I wish to discover any thing that is certain.\*

But it is not enough to have realized all this, I must take care to remember it: for my accustomed opinions continually creep back into my mind, and take possession of my belief, which has, so to speak, been enslaved to them by long experience and familiarity, for the most part against my will. Nor shall I ever break the habit of assenting to them and relying on them, as long as I go on supposing them to be such as they are in truth, that is to say, doubtful indeed in some respect, as has been shown just now, and yet nonetheless highly probable, so that it is much more rational to believe than to deny them. Hence, it seems to me, I shall not be acting unwisely if, willing myself to believe the contrary, I deceive myself, and make believe, for some considerable time, that they are altogether false and imaginary, until, once the prior judgements on each side have been evenly balanced in the scales, no evil custom can any longer twist my judgement away from the correct perception of things. For I know for sure that no danger or error will ensue as a result of this, and that there is no risk that I shall be giving too free a rein to my distrustfulness, since my concern at the moment is not with action but only with the attainment of knowledge.\*

I will therefore suppose that, not God, who is perfectly good and the source of truth, but some evil spirit, supremely powerful and cunning, has devoted all his efforts to deceiving me.\* I will think that the sky, the air, the earth, colours, shapes, sounds, and all external things are no different from the illusions of our dreams, and that they are traps he has laid for my credulity; I will consider myself as having no hands, no eyes, no flesh, no blood, and no senses, but yet as falsely

believing that I have all these;\* I will obstinately cling to these thoughts, and in this way, if indeed it is not in my power to discover any truth,\* yet certainly to the best of my ability and determination I will take care not to give my assent to anything false, or to allow this deceiver, however powerful and cunning he may be, to impose upon me in any way.

But to carry out this plan requires great effort, and there is a kind of indolence that drags me back to my customary way of life. Just as a prisoner, who was perhaps enjoying an imaginary freedom in his dreams, when he then begins to suspect that he is asleep is afraid of being woken up, and lets himself sink back into his soothing illusions; so I of my own accord slip back into my former opinions, and am scared to awake, for fear that tranquil sleep will give way to laborious hours of waking, which from now on I shall have to spend not in any kind of light, but in the unrelenting darkness of the difficulties just stirred up.

## 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 24 a 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 vesterday, 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,