

René Descartes

Meditations on First Philosophy

in which are demonstrated the existence of God and the distinction
between the human soul and body

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Abridged by Richard Johns (I cut about 35% of it)

First Meditation: On what can be called into doubt

Some years ago I was struck by how many false things I had believed, and by how doubtful was the structure of beliefs that I had based on them. I realized that if I wanted to establish anything in the sciences that was stable and likely to last, I needed—just once in my life—to demolish everything completely and start again from the foundations. It looked like an enormous task, and I decided to wait until I was old enough to be sure that there was nothing to be gained from putting it off any longer. I have now delayed it for so long that I have no excuse for going on planning to do it rather than getting to work. So today I have set all my worries aside and arranged for myself a clear stretch of free time. I am here quite alone, and at last I will devote myself, sincerely and without holding back, to demolishing my opinions.

I can do this without showing that all my beliefs are false, which is probably more than I could ever manage. My reason tells me that as well as withholding assent from propositions that are obviously

•false, I should also withhold it from ones that are •not completely certain and indubitable. So all I need, for the purpose of rejecting all my opinions, is to find in each of them at least some reason for doubt. I can do this without going through them one by one, which would take forever: once the foundations of a building have been undermined, the rest collapses of its own accord; so I will go straight for the basic principles on which all my former beliefs rested.

Whatever I have accepted until now as most true has come to me through my senses. But occasionally I have found that they have deceived me, and it is unwise to trust completely those who have deceived us even once.

[The next paragraph presents a series of considerations back and forth. It is set out here as a discussion between two people, but that isn't how Descartes presented it.]

Hopeful: Yet although the senses sometimes deceive us about objects that are very small or distant, that doesn't apply to my belief that I am here, sitting by the fire, wearing a winter dressing-gown, holding this piece of paper in my hands, and so on. It seems to be quite impossible to doubt beliefs like these, which come from the senses. Another example: how can I doubt that these hands or this whole body are mine? To doubt such things I would have to liken myself to brain-damaged madmen who are convinced they are kings when really they are paupers, or say they are dressed in purple when they are naked, or that they are pumpkins, or made of glass. Such people are insane, and I would be thought equally mad if I modelled myself on them.

Doubtful (sarcastically): What a brilliant piece of reasoning! As if I were not a man who sleeps at night and often has all the same experiences while asleep as madmen do when awake—indeed sometimes even more improbable ones. Often in my dreams I am convinced of just such familiar events— that I am sitting by the

fire in my dressing-gown—when in fact I am lying undressed in bed!

Hopeful: Yet right now my eyes are certainly wide open when I look at this piece of paper; I shake my head and it isn't asleep; when I rub one hand against the other, I do it deliberately and know what I am doing. This wouldn't all happen with such clarity to someone asleep.

Doubtful: Indeed! As if I didn't remember other occasions when I have been tricked by exactly similar thoughts while asleep! As I think about this more carefully, I realize that there is never any reliable way of distinguishing being awake from being asleep. This discovery makes me feel dizzy, [joke:] which itself reinforces the notion that I may be asleep!

Suppose then that I am dreaming—it isn't true that I, with my eyes open, am moving my head and stretching out my hands. Suppose, indeed that I don't even have hands or any body at all. Still, it has to be admitted that the visions that come in sleep are like paintings: they must have been made as copies of real things; so at least these general kinds of things— eyes, head, hands and the body as a whole—must be real and not imaginary. For even when painters try to depict sirens and satyrs with the most extraordinary bodies, they simply jumble up the limbs of different kinds of real animals, rather than inventing natures that are entirely new. If they do succeed in thinking up something completely fictitious and unreal—not remotely like anything ever seen before—at least the colours used in the picture must be real. Similarly, although these general kinds of things— eyes, head, hands and so on—could be imaginary, there is no denying that certain even simpler and more universal kinds of things are real. These are the elements out of which we make all our mental images of things—the true and also the false ones.

These simpler and more universal kinds include *body*, and *extension*; the *shape* of extended things; their *quantity*, *size* and *number*; the *places* things can be in, the *time* through which they can last, and so on.

So it seems reasonable to conclude that physics, astronomy, medicine, and all other sciences dealing with things that have complex structures are doubtful; while arithmetic, geometry and other studies of the simplest and most general things—whether they really exist in nature or not—contain something certain and indubitable. For whether I am awake or asleep, two plus three makes five, and a square has only four sides. It seems impossible to suspect that such obvious truths might be false.

However, I have for many years been sure that there is an all-powerful God who made me to be the sort of creature that I am. How do I know that he hasn't brought it about that there is no earth, no sky, nothing that takes up space, no shape, no size, no place, while making sure that all these things appear to me to exist? Anyway, I sometimes think that others go wrong even when they think they have the most perfect knowledge; so how do I know that I myself don't go wrong every time I add two and three or count the sides of a square? Well, ·you might say·, God would not let me be deceived like that, because he is said to be supremely good. But, ·I reply·, if God's goodness would stop him from letting me be deceived •all the time, you would expect it to stop him from allowing me to be deceived even •occasionally; yet clearly I sometimes am deceived.

Some people would deny the existence of such a powerful God rather than believe that everything else is uncertain. Let us grant them—for purposes of argument—that there is no God, and theology is fiction. On their view, then, I am a product of fate or chance or a long chain of causes and effects. But the *less* powerful they make my original cause, the *more* likely it is that I am so

imperfect as to be deceived all the time—because deception and error seem to be imperfections. Having no answer to these arguments, I am driven back to the position that doubts can properly be raised about any of my former beliefs. I don't reach this conclusion in a flippant or casual manner, but on the basis of powerful and well thought-out reasons. So in future, if I want to discover any certainty, I must withhold my assent from these former beliefs just as carefully as I withhold it from obvious falsehoods.

It isn't enough merely to have noticed this, though; I must make an effort to remember it. My old familiar opinions keep coming back, and against my will they capture my belief. It is as though they had a *right* to a place in my belief-system as a result of long occupation and the law of custom. These habitual opinions of mine are indeed highly probable; although they are in a sense doubtful, as I have shown, it is more reasonable to believe than to deny them. But if I go on viewing them in that light I shall never get out of the habit of confidently assenting to them. To conquer that habit, therefore, I had better switch right around and pretend (for a while) that these former opinions of mine are utterly false and imaginary. I shall do this until I have something to counter-balance the weight of old opinion, and the distorting influence of habit no longer prevents me from judging correctly. However far I go in my distrustful attitude, no actual harm will come of it, because my project won't affect how I •act, but only how I •go about acquiring knowledge.

So I shall suppose that some malicious, powerful, cunning demon has done all he can to deceive me—rather than this being done by God, who is supremely good and the source of truth. I shall think that the sky, the air, the earth, colours, shapes, sounds and all external things are merely dreams that the demon has contrived as traps for my judgment. I shall consider myself as having no hands or eyes, or flesh, or blood or senses, but as having falsely believed that I had all these things. I shall stubbornly persist in this train of

thought; and even if I can't learn any truth, I shall at least do what I can do, which is to be on my guard against accepting any falsehoods, so that the deceiver—however powerful and cunning he may be—will be unable to affect me in the slightest. This will be hard work, though, and a kind of laziness pulls me back into my old ways. Like a prisoner who dreams that he is free, starts to suspect that it is merely a dream, and wants to go on dreaming rather than waking up, so I am content to slide back into my old opinions; I fear being shaken out of them because I am afraid that my peaceful sleep may be followed by hard labour when I wake, and that I shall have to struggle not in the light but in the imprisoning darkness of the problems I have raised.

Second Meditation:

The nature of the human mind, and how it is better known than the body

Yesterday's meditation raised doubts—ones that are too serious to be ignored—which I can see no way of resolving. I feel like someone who is suddenly dropped into a deep whirlpool that tumbles him around so that he can neither stand on the bottom nor swim to the top. However, I shall force my way up, and try once more to carry out the project that I started on yesterday. I will set aside anything that admits of the slightest doubt, treating it as though I had found it to be outright false; and I will carry on like that until I find something certain, or—at worst—until I become certain that there is no certainty. Archimedes said that if he had one firm and immovable point he could lift the world with a long enough lever; so I too can hope for great things if I manage to find just one little thing that is solid and certain.

I will suppose, then, that everything I see is fictitious. I will believe that my memory tells me nothing but lies. I have no senses. Body, shape, extension, movement and place are illusions. So what remains true? Perhaps just the one fact that nothing is certain!

Hopeful: Still, how do I know that there isn't something— not on that list—about which there is no room for even the slightest doubt? Isn't there a God (call him what you will) who gives me the thoughts I am now having?

Doubtful: But why do I think this, since I might myself be the author of these thoughts?

Hopeful: But then doesn't it follow that I am, at least, something?

Doubtful: This is very confusing, because I have just said that I have no senses and no body, and I am so bound up with a body and with senses that one would think that I can't exist without them. Now that I have convinced myself that there is nothing in the world—no sky, no earth, no minds, no bodies—does it follow that I don't exist either?

Hopeful: No it does not follow; for if I *convinced myself of something* then I certainly existed.

Doubtful: But there is a supremely powerful and cunning deceiver who deliberately deceives me all the time!

Hopeful: Even then, if he is deceiving me I undoubtedly exist: let him deceive me all he can, he will never bring it about that *I am nothing* while *I think I am something*. So after thoroughly thinking the matter through I conclude that this proposition, I am, I exist, must be true whenever I assert it or think it.

But this 'I' that must exist—I still don't properly understand what it is; so I am at risk of confusing it with something else, thereby falling into error in the very item of knowledge that I maintain is the most certain and obvious of all. To get straight about what this

‘I’ is, I shall go back and think some more about what I believed myself to be before I started this meditation. I will eliminate from those beliefs anything that could be even slightly called into question by the arguments I have been using, which will leave me with only beliefs about myself that are certain and unshakable.

Well, then, what did I think I was? A man. But what is a man? Shall I say ‘a rational animal’? No; for then I should have to ask what an animal is, and what rationality is—each question would lead me on to other still harder ones, and this would take more time than I can spare. Let me focus instead on the beliefs that spontaneously and naturally came to me whenever I thought about what I was. The first such belief was that I had a face, hands, arms and the whole structure of bodily parts that corpses also have—I call it the body. The next belief was that I ate and drank, that I moved about; and that I engaged in sense-perception and thinking, which I thought were done by the soul. [In this work ‘the soul’ = ‘the mind’; it has no religious implications.]

If I gave any thought to what this soul was like, I imagined it to be something thin and filmy— like a wind or fire or ether— permeating my more solid parts. I was more sure about the body, though, thinking that I knew exactly what sort of thing it was. If I had tried to put my conception of the body into words, I would have said this:

By a ‘body’ I understand whatever has a definite shape and position, and can occupy a region of space in such a way as to keep every other body out of it; it can be perceived by touch, sight, hearing, taste or smell, and can be moved in various ways.

I would have added that a body can’t start up movements by itself, and can move only through being moved by other things that bump into it. It seemed to me quite out of character for a body to be able to •initiate movements, or to be able to •sense and think, and I was

amazed that certain bodies—namely, human ones—*could* do those things.

But now that I am supposing there is a supremely powerful and malicious deceiver who has set out to trick me in every way he can—*now* what shall I say that I am? Can I *now* claim to have any of the features that I used to think belong to a body? When I think about them really carefully, I find that they are all open to doubt: I shan't waste time by showing this about each of them separately. Now, what about the features that I attributed to the soul? Nutrition or movement? Since now I am pretending that I don't have a body, these are mere fictions. Sense-perception? One needs a body in order to perceive; and, besides, when dreaming I have seemed to perceive through the senses many things that I later realized I had not perceived in that way. Thinking? At last I have discovered it—thought! This is the one thing that can't be separated from me. I am, I exist—that is certain. But for how long? For as long as I am thinking. But perhaps no longer than that; for it *might* be that if I stopped thinking I would stop existing; and I have to treat that possibility as though it were actual, because my present policy is to reject everything that isn't necessarily true. Strictly speaking, then, I am simply a thing that thinks—a mind, or soul, or intellect, or reason, these being words whose meaning I have only just come to know. Still, I am a real, existing thing. What kind of a thing? I have answered that: a thinking thing.

...

Because I may be dreaming, I can't say for sure that I now see the flames, hear the wood crackling, and feel the heat of the fire; but I certainly *seem* to see, to hear, and to be warmed. This cannot be false; what is called 'sensing' is strictly just this *seeming*, and when 'sensing' is understood in this restricted sense of the word it too is simply thinking. ...

Let us consider the things that people ordinarily think they understand best of all, namely the bodies that we touch and see. I don't mean bodies in general—for our general thoughts are apt to be confused—but one particular body: this piece of wax, for example. It has just been taken from the honeycomb; it still tastes of honey and has the scent of the flowers from which the honey was gathered; its colour, shape and size are plain to see; it is hard, cold and can be handled easily; if you rap it with your knuckle it makes a sound. In short, it has everything that seems to be needed for a body to be known perfectly clearly. But as I speak these words I hold the wax near to the fire, and look! The taste and smell vanish, the colour changes, the shape is lost, the size increases; the wax becomes liquid and hot; you can hardly touch it, and it no longer makes a sound when you strike it. But is it still the same wax? Of course it is; no-one denies this. So what was it about the wax that I understood so clearly? Evidently it was not any of the features that the senses told me of; for all of them—brought to me through taste, smell, sight, touch or hearing—have now altered, yet it is still the same wax.

Perhaps what I now think about the wax indicates what its nature was all along. If that is right, then the wax was not the sweetness of the honey, the scent of the flowers, the whiteness, the shape, or the sound, but was rather a body that recently presented itself to me in those ways but now appears differently. But what exactly is this thing that I am now imagining? Well, if we take away whatever doesn't belong to the wax (·that is, everything that the wax *could* be without·), what is left is merely *something extended, flexible and changeable*. What do 'flexible' and 'changeable' mean here? I can imaginatively picture this piece of wax changing from round to square, from square to triangular, and so on. But that isn't what changeability is. In knowing that the wax is changeable I understand that it can go through *endlessly many* changes of that kind, far more than I can depict in my imagination; so it isn't my imagination that gives me my grasp of the wax as flexible and

changeable. Also, what does ‘extended’ mean? Is the wax’s extension also unknown? It increases if the wax melts, and increases again if it boils; the wax can be extended in many more ways (·that is, with many more shapes·) than I will ever bring before my imagination. I am forced to conclude that the nature of this piece of wax isn’t revealed by my imagination, but is perceived by the mind alone. (I am speaking of •this particular piece of wax; the point is even clearer with regard to •wax in general.) This wax that is perceived by the mind alone is, of course, the same wax that I see, touch, and picture in my imagination—in short the same wax I thought it to be from the start. But although my perception of it seemed to be a case of vision and touch and imagination, it isn’t so and it never was. Rather, it is purely a scrutiny by the mind alone— formerly an imperfect and confused one, but now vivid and clear because I am now concentrating carefully on what the wax consists in.

As I reach this conclusion I am amazed at how prone to error my mind is. For although I am thinking all this out within myself, silently, I do it with the help of words, and I am at risk of being led astray by them. When the wax is in front of us, we say that we see it, not that we *judge* it to be there from its colour or shape; and this might make me think that knowledge of the wax comes from what the eye sees rather than from the perception of the mind alone. But ·this is clearly wrong, as the following example shows·. If I look out of the window and see men crossing the square, as I have just done, I 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 that could conceal robots? I *judge* that they are men. Something that I thought I saw with my eyes, therefore, was really grasped solely by my mind’s faculty of judgment [= ‘ability or capacity to form beliefs’].

However, someone who wants to know more than the common crowd should be ashamed to base his doubts on ordinary ways of talking. Let us push ahead, then, and ask: *When* was my perception

of the wax's nature more perfect and clear? Was it •when I first looked at the wax, and thought I knew it through my senses? Or is it •now, after I have enquired more carefully into the wax's nature and into how it is known? It would be absurd to hesitate in answering the question; for what clarity and sharpness was there in my earlier perception of the wax? Was there anything in it that •a lower animal couldn't have? But when I consider the wax apart from its outward forms—take its clothes off, so to speak, and consider it naked—then although my judgment may still contain errors, at least I am now having a perception of a sort that requires •a human mind. ...

Third Meditation: God

[Here Descartes gives his famous 'hallmark' argument that God exists. Note that his reason for doing so is not primarily religious. God is essential to Descartes' epistemology – initially the only entity, beyond Descartes' own mind, that he can prove to exist.]

I will now shut my eyes, block my ears, cut off all my senses. I will regard all my mental images of bodily things as empty, false and worthless (if I could, I would clear them out of my mind altogether). I will get into conversation with myself, examine myself more deeply, and try in this way gradually to know myself more intimately. I am a thing that thinks, i.e. that doubts, affirms, denies, understands some things, is ignorant of many others, wills, and refuses. This thing also imagines and has sensory perceptions; for, as I remarked before, even if the *objects* of my sensory experience and imagination don't exist outside me, still sensory perception and imagination themselves, considered simply as *mental* events, certainly do occur in me.

That lists everything that I truly know, or at least everything I have, up to now, discovered that I know. Now I will look more carefully to see whether I have overlooked other facts about myself. *I am certain that I am a thinking thing.* Doesn't that tell me what it takes for me to be certain about anything? In this first item of knowledge there is simply a vivid and clear perception of what I am asserting; this wouldn't be enough to make me certain of its truth if it could ever turn out that something that I perceived so vividly and clearly was false. So I now seem to be able to lay it down as a general rule that *whatever I perceive very vividly and clearly is true.*

I previously accepted as perfectly certain and evident many things that I afterwards realized were doubtful—the earth, sky, stars, and everything else that I took in through the senses—but in those cases what I perceived clearly were merely the ideas or thoughts of those things that came into my mind; and I am still not denying that those ideas occur within me. But I used also to believe that my ideas came from things outside that resembled them in all respects. Indeed, I believed this for so long that I wrongly came to think that I perceived it clearly. In fact, it was false; or anyway if it was true it was not thanks to the strength of my perceptions.

But what about when I was considering something simple and straightforward in arithmetic or geometry, for example that two plus three makes five? Didn't I see these things clearly enough to accept them as true? Indeed, the only reason I could find for doubting them was this: Perhaps some God could have made me so as to be deceived even in those matters that seemed most obvious. Whenever I bring to mind my old belief in the supreme power of God, I have to admit that God could, if he wanted to, easily make me go wrong even about things that I think I see perfectly clearly. But when I turn my thought onto the things themselves—the ones I think I perceive clearly—I find them so convincing that I spontaneously exclaim: 'Let him do his best to deceive me! He

will never bring it about that I am nothing while I think I am something; or make it true in the future that I have never existed, given that I do now exist; or bring it about that two plus three make more or less than five, or anything else like this in which I see a plain contradiction.’ Also, since I have no evidence that there is a deceiving God, and don’t even know for sure that there is a God at all, the reason for doubt based purely on this supposition of a deceiving God is a very slight and theoretical one. However, I shall want to remove even this slight reason for doubt; so when I get the opportunity I shall examine whether there is a God, and (if there is) whether he can be a deceiver. If I don’t settle this, it seems, then I can never be *quite* certain about anything else.

First, if I am to proceed in an orderly way I should classify my thoughts into definite kinds, and ask which kinds can properly be said to be true or false. Some of my thoughts are, so to speak, images or pictures of things—as when I think of a man, or a chimera, or the sky, or an angel, or God— and strictly speaking these are the only thoughts that should be called ‘ideas’. Other thoughts have more to them than that: for example when I will, or am afraid, or affirm, or deny, my thought represents some particular thing but it also includes something more than merely the likeness of that thing. Some thoughts in this category are called volitions or emotions, while others are called judgments.

When ideas are considered solely in themselves and not taken to be connected to anything else, they can’t be false; for whether it is •a goat that I am imagining or •a chimera, either way it is true *that I do imagine it*. Nor is there falsity in the will or the emotions; for even if the things I want are wicked or non-existent, it is still true *that I want them*. All that is left—the only kind of thought where I must watch out for mistakes—are judgments. And the mistake they most commonly involve is to judge that my ideas resemble things outside me. Of course, if I considered the ideas themselves simply

as aspects of my thought and not as connected to anything else, they could hardly lead me into any error.

Among my ideas, some seem to be •innate, some to be •caused from the outside, and others to have been •invented by me. As I see it, •my understanding of what a *thing* is, what *truth* is, and what *thought* is, derives purely from my own nature, ·which means that it is innate·; •my hearing a noise or seeing the sun or feeling the fire comes from things outside me; and •sirens, hippogriffs and the like are my own invention. But perhaps really all my ideas are caused from the outside, or all are innate, or all are made up; for I still have not clearly perceived their true origin.

But my main question now concerns the ideas that I take to come from things outside me: why do I think they resemble these things? Nature has apparently taught me to think that they do. But also I know from experience that these ideas don't depend on my will, and thus don't depend simply on me. They often come into my mind without my willing them to: right now, for example, I have a feeling of warmth, whether I want to or not, and that leads me to think that this sensation or idea of heat comes from something other than myself, namely the heat of a fire by which I am sitting. And it seems natural to suppose that what comes to me from that external thing will be like it rather than unlike it.

Now let me see if these arguments are strong enough. When I say 'Nature taught me to think this', all I mean is that •I have a spontaneous impulse to believe it, *not* that •I am shown its truth by some natural light. There is a great difference between those. Things that are revealed by the natural light—for example, that *if I am doubting then I exist*—are not open to any doubt, because no other faculty that might show them to be false could be as trustworthy as the natural light. My natural *impulses*, however, have no such privilege: I have often come to think that they had

pushed me the wrong way on moral questions, and I don't see any reason to trust them in other things.

Then again, although these ideas don't depend on my will, it doesn't follow that they must come from things located outside me. Perhaps they come from some faculty of mine other than my will—one that I don't fully know about—which produces these ideas without help from external things; this is, after all, just how I have always thought ideas are produced in me when I am dreaming. Similarly, the natural impulses that I have been talking about, though they seem opposed to my will, come from within *me*; which provides evidence that I can cause things that *my will* does not cause.

Finally, even if these ideas do come from things other than myself, it doesn't follow that they must resemble those things. Indeed, I think I have often discovered objects to be very unlike my ideas of them. For example, I find within me two different ideas of the sun: •one seems to come from the senses—it is a prime example of an idea that I reckon to have an external source—and it makes the sun appear very small; •the other is based on astronomical reasoning—i.e. it is based on notions that are innate in me (or else it is constructed by me in some other way)—and it shows the sun to be many times larger than the earth. Obviously these ideas cannot both resemble the external sun; and reason convinces me that the idea that seems to have come most directly from the sun itself in fact does not resemble it at all.

These considerations show that it isn't reliable judgment but merely some blind impulse that has led me to think that there exist outside me things that give ideas or images [= 'likenesses'] of themselves through the sense organs or in some other way.

Perhaps, though, there is another way of investigating whether some of the things of which I have ideas really do exist outside me. Considered simply as mental events, my ideas seem to be all on a

par: they all appear to come from inside me in the same way. But considered as images representing things other than themselves, it is clear that they differ widely. Undoubtedly, the •ideas that represent substances amount to something more—they contain within themselves more representative reality—than do the •ideas that merely represent modes [= ‘qualities’]. Again, the •idea that gives me my understanding of a supreme God—eternal, infinite, unchangeable, omniscient, omnipotent and the creator of everything that exists except for himself—certainly has in it more representative reality than the •ideas that represent merely finite substances.

Now it is obvious by the natural light that the total cause of something must contain at least as much reality as does the effect. For where could the effect get its reality from if not from the cause? And how could the cause give reality to the effect unless it first had that reality itself? Two things follow from this: that something can’t arise from nothing, and that what is more perfect—that is, contains in itself more reality—can’t arise from what is less perfect. And this is plainly true not only for ‘actual’ or ‘intrinsic’ reality (as philosophers call it) but also for the representative reality of ideas—that is, the reality that an idea represents. A stone, for example, can begin to exist only if it is produced by something that contains—either straightforwardly or in some higher form—everything that is to be found in the stone; similarly, heat can’t be produced in a previously cold object except by something of at least the same order of perfection as heat, and so on. (I don’t say simply ‘except by something that is hot’, because that is not necessary. The thing could be caused to be hot by something that doesn’t itself *straightforwardly* contain heat—i.e. that isn’t itself *hot*—but contains heat *in a higher form*, that is, something of a higher order of perfection than heat. Thus, for example, although God is obviously not himself *hot*, he can cause something to be hot because he contains heat not straightforwardly but in a higher form.) But it is also true that the *idea of* heat or of a

stone can be caused in me only by something that contains at least as much reality as I conceive to be in the heat or in the stone. For although this cause does not transfer any of its actual or intrinsic reality to my idea, it still can't be less real. An idea need have no intrinsic reality except what it derives from my thought, of which it is a mode. But any idea that has representative reality must surely come from a cause that contains at least as much *intrinsic* reality as there is *representative* reality in the idea. For if we suppose that an idea contains something that was not in its cause, it must have got this from nothing; yet the kind of reality that is involved in something's being represented in the mind by an idea, though it may not be very perfect, certainly *isn't* nothing, and so it can't *come from* nothing.

It might be thought that since the reality that I am considering in my ideas is merely representative, it might be possessed by its cause only representatively and not intrinsically. That would mean that the cause is itself an idea, because only ideas have representative reality. But that would be wrong. Although one idea may perhaps originate from another, there can't be an infinite regress of such ideas; eventually one must come back to an idea whose cause isn't an idea, and *this* cause must be a kind of archetype [= 'pattern or model, from which copies are made'] containing *intrinsically* all the reality or perfection that the idea contains only *representatively*. So the natural light makes it clear to me that my ideas are like pictures or images that can easily •fall short of the perfection of the things from which they are taken, but which can't •exceed it.

The longer and more carefully I examine all these points, the more vividly and clearly I recognize their truth. But what is my conclusion to be? If I find that

- some idea of mine has so much representative reality that I am sure the same reality doesn't reside in me, either

straightforwardly or in a higher form, and hence that I myself can't be the cause of the idea,

then, because everything must have *some* cause, it will necessarily follow that

- I am not alone in the world: there exists some other thing that is the cause of that idea.

If no such idea is to be found in me, I shall have no argument to show that anything exists apart from myself; for, despite a most careful and wide-ranging survey, this is the only argument I have so far been able to find.

Among my ideas, apart from the one that gives me a representation of myself, which can't present any difficulty in this context, there are ideas that variously represent God, inanimate bodies, angels, animals and finally other men like myself.

As regards my ideas of other men, or animals, or angels, I can easily understand that they could be put together from the ideas I have of myself, of bodies and of God, even if the world contained no men besides me, no animals and no angels.

As to my ideas of bodies, so far as I can see they contain nothing that is so great or excellent that it couldn't have originated in myself. For if I examine them thoroughly, one by one, as I did the idea of the wax yesterday, I realize that the following short list gives everything that I perceive vividly and clearly in them:

- size, or extension in length, breadth and depth;
- shape, which is a function of the boundaries of this extension;
- position, which is a relation between various items possessing shape;
- motion, or change in position.

To these may be added:

- substance, duration and number.

But as for all the rest, including light and colours, sounds, smells, tastes, heat and cold and the other qualities that can be known by touch, I think of these in such a confused and obscure way that I don't even know whether they are true or false, that is, whether my ideas of them are ideas of real things or of non-things. Strictly speaking, only judgments can be true or false; but we can also speak of an idea as 'false' in a certain sense—we call it 'materially false'—if it represents a non-thing as a thing. For example, my ideas of heat and cold have so little clarity and distinctness that they don't enable me to know whether

- cold is merely the absence of heat, or
- heat is merely the absence of cold, or
- heat and cold are both real 'positive' qualities, or
- neither heat nor cold is a real 'positive' quality.

If the right answer is that cold is nothing but the absence of heat, the idea that represents it to me as something real and positive deserves to be called 'false'; and the same goes for other ideas of this kind.

Such ideas obviously don't have to be caused by something other than myself. •If they are false—that is, if they represent non-things—then they are in me only because of a deficiency or lack of perfection in my nature, which is to say that they arise from nothing; I know this by the natural light. •If on the other hand they are true, there is no reason why they shouldn't arise from myself, since they represent such a slight reality that I can't even distinguish it from a non-thing.

With regard to the vivid and clear elements in my ideas of bodies, it appears that I could have borrowed some of these from my idea of myself, namely *substance*, *duration*, *number* and anything else of this kind. For example, I think that a stone is a substance, or is a

thing capable of existing independently, and I also think that I am a substance. Admittedly I conceive of myself as a thing that thinks and isn't extended, and of the stone as a thing that is extended and doesn't think, so that the two conceptions differ enormously; but they seem to have the classification 'substance' in common. Again, I perceive that I now exist, and remember that I have existed •for some time; moreover, I have various thoughts that I can •count; it is in these ways that I acquire the ideas of •duration and •number that I can then transfer to other things. As for all the other elements that make up the ideas of bodies— extension, shape, position and movement—these are not straightforwardly contained in me, since I am nothing but a thinking thing; but since they are merely modes of a substance, and I am a substance, it seems possible that they are contained in me in some higher form. ·That is, I am not myself extended, shaped etc., but because I am a substance I am (so to speak) metaphysically one up on these mere modes, which implies that I can contain within me whatever it takes to cause the ideas of them·.

So there remains only the idea of God: is there anything in *that* which couldn't have originated in myself? By the word 'God' I understand a substance that is infinite, eternal, unchangeable, independent, supremely intelligent, supremely powerful, which created myself and anything else that may exist. The more carefully I concentrate on these attributes, the less possible it seems that *any* of them could have originated from me alone. So this whole discussion implies that God necessarily exists.

It is true that my being a substance explains my having the idea of substance; but it does not explain my having the idea of an *infinite substance*. That must come from some substance that is itself infinite. I am finite.

It might be thought that ·this is wrong, because· my notion of the •infinite is arrived at merely by negating the •finite, just as my

conceptions of •rest and •darkness are arrived at by negating •movement and •light. That would be a mistake, however. I clearly understand that there is more reality in an infinite substance than in a finite one, and hence that my perception of the infinite, i.e. God, is in some way prior to my perception of the finite, i.e. myself. Whenever I know that I doubt something or want something, I understand that I lack something and am therefore not wholly perfect. How could I grasp this unless I had an idea of a more perfect being that enabled me to recognize my own defects by comparison?

Nor can it be said that this idea of God could be ‘materially false’, and thus have come from nothing, as may be the case (I noted this a few moments ago) with the ideas of heat and cold. On the contrary, it is utterly vivid and clear, and contains in itself more representative reality than any other idea; that is, it stands for something that is grander, more powerful, more real, than any other idea stands for; so it is more true—less open to the suspicion of falsehood—than any other idea. This idea of a supremely perfect and infinite being is, I say, true in the highest degree; for although one might imagine that such a being does not exist, it can’t be supposed that the idea of such a being represents something unreal in the way that the idea of cold perhaps does. The idea is, moreover, utterly vivid and clear. It does not matter that I don’t grasp the infinite, or that there are countless additional attributes of God that I can’t *grasp* and perhaps can’t even *touch* in my thought; for it is in the nature of the infinite not to be grasped by a finite being like myself. It is enough that I *understand* the infinite, and that I judge that all the attributes that I clearly perceive and know to imply some perfection—and perhaps countless others of which I am ignorant—are present in God either straightforwardly or in some higher form. This is enough to make the idea that I have of God the truest and most vivid and clear of all my ideas.

... [Descartes considers and rejects several more objections to his argument.]

It remains for me only to ask *how* I received this idea from God. I didn't get it from the senses: it has never come to me unexpectedly, as do most of the ideas that occur when I seem to see and touch and hear things. And it's not something that I invented, either; for clearly I can't take anything away from it or add anything to it. When an idea is sheerly invented, the inventor is free to fiddle with it—add a bit here, subtract a bit there—whereas my idea of God is a natural unit that doesn't invite or even permit such interference. The only remaining alternative is that my idea of God is innate in me, just as the idea of myself is innate in me.

It is no surprise that God in creating me should have placed this idea in me, to serve as a mark of the craftsman stamped on his work. The mark need not be anything distinct from the work itself. But the mere fact that God created me makes it very believable that I am somehow made in his image and likeness, and that I perceive that likeness in the same way that I perceive myself. That is, when I turn my mind's eye upon myself, I understand that I am a thing that •is incomplete and •dependent on something else, and that •aspires without limit to ever greater and better things; but I also understand at the same time that he on whom I depend has within him all those greater things—not just indefinitely but infinitely, not just potentially but actually—and hence that he is God. The core of the argument is this: I couldn't exist with the nature that I have—that is, containing within me the idea of God—if God didn't really exist. By 'God' I mean the very being the idea of whom is within me—the one that has no defects and has all those perfections that I can't *grasp* but can somehow *touch* with my thought. This shows clearly that it is not possible for him to be a deceiver, since the natural light makes it clear that all fraud and deception depend on some defect. ...

Fourth Meditation: Truth and falsity

[Here Descartes tries to explain how we form *false* beliefs. After all, if God is perfect, and he also made our ‘faculty of judgement’ (belief-forming apparatus) then shouldn’t it be perfectly engineered and never go wrong?]

... To begin with, I see that it is impossible that God should ever deceive me. Only someone who has something wrong with him will engage in trickery or deception. That someone is able to deceive others may be a sign of his skill or power, but his *wanting* to deceive them is a sign of his malice or weakness; and those are not to be found in God.

Next, I know from experience that I have a faculty of judgment; and this, like everything else I have, was given to me by God. Since God doesn’t want to deceive me, I am sure that he didn’t give me a faculty of judgment that would lead me into error while I was using it correctly.

That would settle the matter, except for one difficulty: what I have just said seems to imply that I can never be in error. If everything that is in me comes from God, and he didn’t equip me with a capacity for making mistakes, doesn’t it follow that I can never go wrong in my beliefs? Well, I know by experience that I am greatly given to errors; but when I focus on God to the exclusion of everything else, I find in him no cause of error or falsity. In looking for the cause of my errors, I am helped by this thought: as well as having a real and positive idea of *God* (a being who is supremely perfect), I also have what you might call a negative idea of *nothingness* (that which is furthest from all perfection). I realize that I am somewhere in between God and nothingness, or between

supreme being and non-being. Now, the positive reality that I have been given by the supreme being contains nothing that could lead me astray in my beliefs. I make mistakes, not surprisingly, because my nature involves nothingness or non-being—that is, because I am not myself the supreme being, and lack countless perfections. So error is not something real that depends on God, but is merely something negative, a lack, a defect. There is, therefore, nothing positively error-producing in the faculty of judgment that God gave me. When I go wrong I do so because the faculty of true judgment that I have from God is in my case not free of all limitations, that is, because it partly involves nothingness.

That is still not quite right. For error isn't a mere negation. Pebbles and glaciers lack knowledge, and in them that lack is a mere negation—the absence of something that there is no reason for them to possess. I have lacks of that kind too, mere negations such my lack of the ability to fly, or to multiply two 30-digit prime numbers in my head. But my tendency to error isn't like that. Rather, it is a *privation*, that is, a lack of some knowledge that I *should* have, which means that I still have a problem about how it relates to God. When I think hard about God, it seems impossible that he should have given me a faculty that lacks some perfection that it *should* have. The more skilled the craftsman, the more perfect the thing that he makes; so one would expect something made by the supreme creator to be complete and perfect in every way. It is clear, furthermore, that God *could* have made me in such a way that I was never mistaken; and there is no doubt that he always chooses to do what is best. Does this show that my making mistakes is better than my not doing so? ...

When I look more closely into these errors of mine, I discover that they have two co-operating causes—my faculty of knowledge and my faculty of choice or freedom of the will. My errors, that is, depend on both (a) my intellect and (b) my will. Let us consider these separately. (a) The intellect doesn't affirm or deny anything;

its role is only to present me with ideas regarding which I can make judgments; so strictly speaking it doesn't involve any error at all. There may be many existing things of which my intellect gives me no ideas, but it isn't strictly correct to say that I am deprived of such ideas, as it would be if my nature somehow entitled me to have them. I can give no reason why God *ought* to have given me more ideas than he did. Just because I understand someone to be a skilled craftsman, I don't infer that he *ought* to have put into each of his works all the perfections he can give to some of them. So all I can say is that there are some ideas that I don't have; this is a purely negative fact about me—like the fact that I can't fly; it doesn't mean that there is anything wrong with my nature. (b) I can't complain that God gave me a will or freedom of choice that isn't extensive or perfect enough, since I know by experience that will is entirely without limits. My will is so perfect and so great that I can't conceive of its becoming even greater and more perfect; it is a striking fact that this is true of •my will and not of •any other aspect of my nature. I can easily see that my faculty of understanding is finite, to put it mildly; and I immediately conceive of a much greater •understanding—indeed, of a supremely great and infinite one; and the fact that I can form such an idea shows me that God actually has such an understanding. Similarly, if I examine •memory and •imagination and the rest, I discover that in my case these faculties are weak and limited, while in God they are immeasurable. It is only the will, or freedom of choice, which I experience as so great that I can't make sense of the idea of its being even greater: indeed, my thought of myself as being somehow like God depends primarily upon my will. ...

So the power of willing that God has given me, being extremely broad in its scope and also perfect of its kind, is not the cause of my mistakes. Nor is my power of understanding to blame: God gave it to me, so there can be no error in its activities; when I understand something I undoubtedly understand it correctly. Well, then, where do my mistakes come from? Their source is the fact

that my will has a wider scope than my intellect has, ·so that I am free to form beliefs on topics that I don't understand·. Instead of ·behaving as I ought to, namely by· restricting my will to the territory that my understanding covers, ·that is, suspending judgment when I am not intellectually in control·, I let my will run loose, applying it to matters that I don't understand. In such cases there is nothing to stop the will from veering this way or that, so it easily turns away from what is true and good. That is the source of my error and sin. ...

If when I don't perceive the truth vividly and clearly enough I simply *suspend judgment*, it's clear that I am behaving correctly and avoiding error. It is a misuse of my free will to have an opinion in such cases: if I choose the wrong side I shall be in error; and even if I choose the right side, I shall be at fault because I'll have come to the truth by *sheer chance* and not through *a perception of my intellect*. The latter, as the natural light shows me clearly, should be what influences my will when I affirm things. I have said that error is essentially a *privation*—a lack of something that I should have—and now I know what this privation consists in. It doesn't lie in •the will that God has given me, or even in •the mode of operation that God has built into it; rather it consists in •my misuse of my will. ·Specifically, it consists in •my lack of restraint in the exercise of my will, when I form opinions on matters that I don't clearly understand·. ...

This is where man's greatest and most important perfection is to be found; so today's meditation, with its enquiry into the cause of error, has been very profitable. I must be right in my explanation of the cause of error. If I restrain my will so that I form opinions only on what the intellect vividly and clearly reveals, I cannot possibly go wrong. Here is why. Every vivid and clear perception is undoubtedly something real and positive; so it can't come from nothing, and must come from God. He is supremely perfect; it would be downright contradictory to suppose that he is a deceiver.

So the vivid and clear perception must be true. Today, then, I have learned not only how to avoid error but also how to arrive at the truth. It is beyond question that I shall reach the truth if I think hard enough about •the things that I perfectly understand, keeping them separate from •all the other matters in which my thoughts are more confused and obscure. That is what I shall be really careful to do from now on.

Fifth Meditation:

The essence of material things, and the existence of God considered a second time

[Here Descartes presents his own version of St. Anselm's famous 'ontological argument' for God's existence.]

... I find in myself countless ideas of things that can't be called *nothing*, even if they don't exist anywhere outside me. For although I am free to think of these ideas or not, as I choose, *I didn't invent them*: they have their own true and immutable natures, •which are not under my control•. Even if there are not and never were any triangles outside my thought, still, when I imagine a triangle •I am constrained in how I do this, because• there is a determinate nature or essence or form of *triangle* that is eternal, unchanging, and independent of my mind. Consider the things that I can prove about the triangle—that its three angles equal two right angles, that its longest side is opposite its greatest angle, and so on. I now clearly recognize these properties of the triangle, whether I want to or not, even if I didn't give them a thought when the triangle first came into my mind. So they can't have been invented by me.

It does not help to point out that I have sometimes seen triangular bodies, so that the idea of the triangle might have come to me from them through my sense organs. I can prove truths about the

properties not only of triangles but of countless other shapes that I know I have never encountered through the senses. These properties must be *something*, not pure nothing: whatever is true is something; and these properties are true because I am clearly aware of them. (I have already proved that everything of which I am clearly aware is true; and even if I hadn't proved it, my mind is so constituted that I have to assent to these ·geometrical· propositions as long as I perceive them.) I remember, too, that even back in the times when the objects of the senses held my attention, I regarded the clearly apprehended propositions of pure mathematics—including arithmetic and geometry—as the most certain of all.

·The preceding two paragraphs lead to this conclusion·: The mere fact that I find in my thought an idea of something x, and vividly and clearly perceive x to have a certain property, it follows that x really does have that property. Can I not turn this to account in an argument - a demonstrative proof of the existence of God? The idea of God (that is, of a supremely perfect being) is certainly one that I find within me, just as I find the ideas of shapes and numbers; and I understand ·from this idea· that it belongs to God's nature that he always exists. This understanding is just as vivid and clear as what is involved in ·mathematical· proofs of the properties of shapes and numbers. So even if I have sometimes gone wrong in my meditations in these past days, I ought still to regard the existence of God as being at least as certain as I have taken the truths of mathematics to be.

At first sight, this looks like a trick. Where things other than God are involved, I have been accustomed to distinguish a thing's existence from its essence. ·The question 'What is the *essence* of triangles (or flames or sparrows)?' asks what it takes for something to qualify as a triangle (or flame or sparrow). Answering this still leaves open the *existence* question, which asks whether there are any triangles (or flames or sparrows)·. I can easily believe that in

the case of God, also, existence can be separated from essence, letting us answer the essence question about God while leaving the existence question open, so that God can be thought of as not existing. But on more careful reflection it becomes quite evident that, just as having-internal-angles-equal-to- 180° can't be separated from the idea or essence of a triangle, and as the idea of highlands can't be separated from the idea of lowlands, so existence can't be separated from the essence of God. Just as it is self-contradictory to think of *highlands in a world where there are no lowlands*, so it is self-contradictory to think of *God as not existing*—that is, to think of a supremely perfect being as lacking a perfection, namely the perfection of existence.

Here is a possible objection to the preceding two paragraphs:

I can't think of God except as existing, just as I can't think of a river without banks. From the latter fact, though, it certainly doesn't follow that there are any rivers in the world; so why should it follow from the former fact that God exists? How things are in reality is not settled by my thought; and just as I can imagine a winged horse even though no horse has wings, so I can attach existence to God in my thought even if no God exists.

This involves false reasoning. From the fact that I can't think of a river without banks, it does not follow that a river with banks exists anywhere, but simply that *river* and *banks*—whether or not there are any in reality—are inseparable. On the other hand, from the fact that I can't think of God except as existing it follows that *God* and *existence* are inseparable, which is to say that God really exists. My thought doesn't make it so; it doesn't create necessities. The influence runs the opposite way: the necessity of the thing constrains how I can think, depriving me of the freedom to think of God without existence (that is, a supremely perfect being without a

supreme perfection), like my freedom to imagine a horse with or without wings.

Here is a ·further· possible objection to this line of thought:

Admittedly, once I have supposed that •all perfections belong to God, I must suppose that he exists, because existence is one of the perfections. But what entitles me to suppose God to have all perfections? Similarly, if I suppose that •all quadrilaterals can be inscribed in a circle, I have to conclude that a rhombus can be inscribed in a circle; but that is plainly false, which shows that the original supposition was wrong.

I agree that I don't have to think about God at all; but whenever I do choose to think of him, bringing the idea of *the first and supreme being* out of my mind's store, I *must* attribute all perfections to him, even if I don't attend to them individually straight away. This necessity ·in my thought· guarantees that, when I later realize that existence is a perfection, I am right to conclude then that the first and supreme being exists. Similarly, I don't ever have to imagine a triangle; but whenever I do wish to consider a figure with straight sides and three angles, I *must* attribute to it properties from which it follows that its three angles equal no more than 180°, even if I don't notice this at the time. When on the other hand I examine what figures can be inscribed in a circle, I am not compelled to think that this class includes all quadrilaterals. Indeed, I cannot—while thinking vividly and clearly—even *pretend* that all quadrilaterals can be inscribed in a circle. This kind of false pretence is vastly different from the true ideas that are innate in me, of which the first and chief is the idea of God. This idea isn't a fiction, a creature of my thought, but rather an image of a true and unchanging nature; and I have several indications that this is so. •God is the only thing I can think of whose existence necessarily belongs to its essence. •I can't make sense of there being two or more Gods of this kind; and after

supposing that one God exists, I plainly see that it is necessary that he has existed from eternity and will stay in existence for eternity.

•I perceive many other attributes of God, none of which I can remove or alter. ...

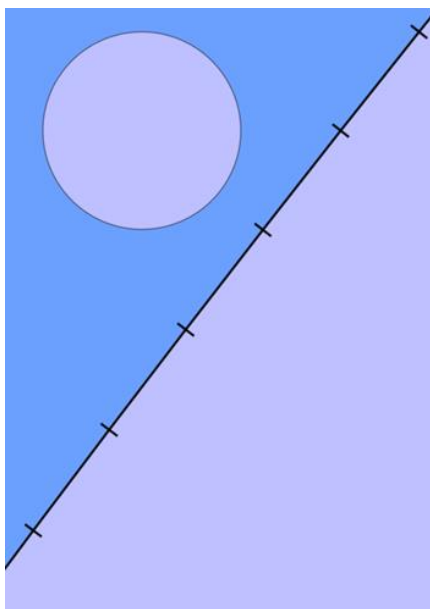
But now I have seen that God exists, and have understood that everything else depends on him and that he is not a deceiver; from which I have inferred that *everything that I vividly and clearly perceive must be true*. So even when I am no longer attending to the arguments that led me to accept this (·i.e. the proposition about triangles·), as long as I remember that I vividly and clearly perceived it no counter-arguments can make me doubt it. It is something that I know for certain ·and in an unshakable way· to be true. ...

Sixth Meditation:

The existence of material things, and the real distinction between mind and body

The remaining task is to consider whether material things exist. Insofar as they are the subject-matter of pure mathematics, I perceive [here = ‘conceive’] them vividly and clearly; so I at least know that they *could* exist, because anything that I perceive in that way could be created by God. (The only reason I have ever accepted for thinking that •something could *not* be made by him is that there would be a contradiction in my perceiving •it distinctly.) My faculty of imagination, which I am aware of using when I turn my mind to material things, also suggests that such things really exist. For when I think hard about what imagination is, I find that it is nothing but an application of •the faculty of *knowing* to •a body that is intimately present to it—and that has to be a body that exists.

To make this clear, I will first examine how •imagination differs from •pure understanding. When I imagine a triangle, for example, I don't merely •understand that it is a three-sided figure, but I also •see the three lines with my mind's eye as if they were present to me; that is what imagining is. But if I think of a chiliagon [= 'thousand-sided figure', pronounced kill-ee-a-gon, see below], although I •understand quite well that it is a figure with a thousand sides, I don't •imagine the thousand sides or see them as if they were present to me.



Top left: a chiliagon

Lower right: zoomed in on a small part of the edge of the chiliagon to show the individual sides.

When I think of a body, I usually form some kind of image; so in thinking of a chiliagon I may construct in my mind—strictly speaking, in my imagination—a confused representation of some figure. But obviously it won't be a chiliagon, for it is the very same image that I would form if I were thinking of, say, a figure with ten thousand sides. So it wouldn't help me to recognize the properties that distinguish a chiliagon from other many-sided figures. In the case of a pentagon, the situation is different. I can of course

understand this figure without the help of the imagination (just as I can understand a chiliagon); but I can also *imagine* a pentagon, by applying my mind's eye to its five sides and the area they enclose. This imagining, I find, takes more mental effort than understanding does; and that is enough to show clearly that imagination is different from pure understanding.

Being able to imagine isn't essential to me, as being able to understand is; for even if I had no power of imagination I would still be the same individual that I am. This seems to imply that my power of imagining depends on something other than myself; and I can easily understand that if there is such a thing as *my body*—that is, if my mind is joined to a certain body in such a way that it can contemplate that body whenever it wants to—then it *might* be this very body that enables me to imagine corporeal things. So it may be that imagining differs from pure understanding purely like this: •when the mind understands, it somehow turns in on itself and inspects one of its own ideas; but •when it imagines, it turns away from itself and looks at something in the body that *conforms* to an idea—either one understood by the mind or one perceived by the senses). I can, I repeat, easily see that this might be how imagination comes about if the body exists; and since I can think of no other equally good way of explaining what imagination is, I can conjecture that the body exists. But this is only a probability. Even after all my careful enquiry I still can't see how, on the basis of the idea of corporeal nature that I find in my imagination, to prove for sure that some body exists.

As well as the corporeal nature that is the subject-matter of pure mathematics, I am also accustomed to imagining colours, sounds, tastes, pain and so on—though not so distinctly. Now, I perceive these much better by means of the senses, which is how (helped by memory) they appear to have reached the imagination. So in order to deal with them more fully, I must attend to the senses—that is, to the kind of thinking [here = 'mental activity'] that I call 'sensory

perception'. I want to know whether the things that are perceived through the senses provide me with any sure argument for the existence of bodies. ...

I don't think I should recklessly accept everything I seem to have acquired from the senses, but I don't think I should call it all into doubt.

First, I know that if I have a vivid and clear thought of something, God could have created it in a way that exactly corresponds to my thought. So the fact that I can vividly and clearly think of one thing apart from another assures me that the two things are distinct from one another—that is, that they are *two*—since they can be separated by God. Never mind *how* they could be separated; that does not affect the judgment that they are distinct. ·So my mind is a distinct thing from my body. Furthermore, my mind is *me*, for the following reason·. I know that I exist and that nothing else belongs to my nature or essence except that I am a thinking thing; from this it follows that my essence consists solely in my being a thinking thing, even though there may be a body that is very closely joined to me. I have a vivid and clear idea of •myself as something that thinks and isn't extended, and a clear idea of •body as something extended that does not think. So it is certain that •I am really distinct from •my body and can exist without it.

Besides this, I find that I am capable of certain special kinds of thinking [= 'mental activity'], namely imagination and sensory perception. Now, I can vividly and clearly understand •myself as a whole without •these faculties; but I can't understand •them without •me, that is, without an intellectual substance for them to belong to. A faculty or ability essentially involves acts, so it involves some *thing* that acts; so I see that •I differ from •my faculties as •a thing differs from •its properties. Of course there are other faculties—such as those of moving around, changing shape, and so on—which also need a substance to belong to; but it must

be a bodily or extended substance and not a thinking one, because a vivid and clear conception of those faculties includes extension but not thought. Now, I have a *passive* faculty of sensory perception, that is, an ability to *receive* and recognize ideas of perceptible objects; but I would have no use for this unless something—myself or something else—had an *active* faculty for *producing* those ideas in the first place. But this faculty can't be in me, since clearly it does not presuppose any thought on my part, and sensory ideas are produced without my cooperation and often even against my will. So sensory ideas must be produced by some substance other than me—a substance that actually *has* (either in a straightforward way or in a higher form) all the reality that is represented in the ideas that it produces. Either (a) this substance is a body, in which case it will straightforwardly contain everything that is represented in the ideas; or else (b) it is God, or some creature more noble than a body, in which case it will contain in a higher form whatever is to be found in the ideas. I can reject (b), and be confident that God does not transmit sensory ideas to me either directly from himself or through some creature that does not straightforwardly contain what is represented in the ideas. God has given me no way of recognizing any such 'higher form' source for these ideas; on the contrary, he has strongly inclined me to believe that bodies produce them. So if the ideas were transmitted from a source other than corporeal things, God would be a deceiver; and he is not. So bodies exist. They may not all correspond exactly with my sensory intake of them, for much of what comes in through the senses is obscure and confused. But at least bodies have all the properties that I vividly and clearly understand, that is, all that fall within the province of pure mathematics.

Those are the clearly understood properties of bodies in general. What about less clearly understood properties (for example light or sound or pain), and properties of particular bodies (for example the size or shape of the sun)? Although there is much doubt and uncertainty about them, I have a sure hope that I

can reach the truth even in these matters. That is because God isn't a deceiver, which implies that he has given me the ability to correct any falsity there may be in my opinions. Indeed, everything that I am 'taught by nature' certainly contains some truth. For by 'nature' as a general term I now mean nothing other than God himself or the ordered system of created things established by him. And my own nature is simply the totality of things bestowed on me by God.

As vividly as it teaches me anything, my own nature teaches me that I have a body, that when I feel pain there is something wrong with this body, that when I am hungry or thirsty it needs food and drink, and so on. So I shouldn't doubt that there is some truth in this.

Nature also teaches me, through these sensations of pain, hunger, thirst and so on, that I (a thinking thing) am not merely in my body as a sailor is in a ship. Rather, I am *closely joined to it*—intermingled with it, so to speak—so that it and I form a unit. If this were not so, I wouldn't *feel* pain when the body was hurt but would *perceive* the damage in an intellectual way, like a sailor seeing that his ship needs repairs. And when the body needed food or drink I would intellectually understand this fact instead of (as I do) having confused sensations of hunger and thirst. These sensations are confused mental events that arise from the union—the intermingling, as it were—of the mind with the body.

[In the next section Descartes makes a distinction that Locke later called the distinction between *primary* and *secondary* qualities.]

Nature also teaches me that various other bodies exist in the vicinity of my body, and that I should seek out some of these and avoid others. Also, I perceive by my senses a great variety of colours, sounds, smells and tastes, as well as differences in heat, hardness and so on; from which I infer that the bodies that cause these sensory perceptions differ from one another in ways that

correspond to the sensory differences, though perhaps they don't *resemble* them. Furthermore, some perceptions are pleasant while others are nasty, which shows that my body—or rather my whole self insofar as I am a combination of body and mind—can be affected by the various helpful or harmful bodies that surround it.

However, some of what I thought I had learned from nature really came not from nature but from a habit of rushing to conclusions; and those beliefs could be false. Here are a few examples:

- that if a region contains nothing that stimulates my senses, then it must be empty;
- that the heat in a body resembles my idea of heat;
- that the colour I perceive through my senses is also present in the body that I perceive;
- that in a body that is bitter or sweet there is the same taste that I experience, and so on;
- that stars and towers and other distant bodies have the same size and shape that they present to my senses.

To think clearly about this matter, I need to define exactly what I mean when I say that 'nature teaches me' something. I am not at this point taking 'nature' to refer to the totality of what God has given me. From that totality I am excluding things that belong to the mind alone, such as my knowledge that *what has been done can't be undone* (I know this through the natural light, without help from the body). I am also excluding things that relate to the body alone, such as the tendency bodies have to fall downwards. My sole concern here is with what God has given to me as a combination of mind and body. My 'nature', then, in this limited sense, does indeed teach me to avoid what hurts and to seek out what gives pleasure, and so on. But it doesn't appear to teach us to rush to conclusions about things located outside us without pausing to think about the question; for knowledge of the truth about such things seems to belong to the mind alone, not to the combination of

mind and body. So, although a star has no more effect on my eye than a candle's flame, my thinking of the star as no bigger than the flame does not come from any positive 'natural' inclination to believe this; it's just a habit of thought that I have had ever since childhood, with no rational basis for it. Similarly, although I feel heat when I approach a fire and feel pain when I go too near, there is no good reason to think that something in the fire resembles the heat, or resembles the pain. There is merely reason to suppose that something or other in the fire causes feelings of heat or pain in us. Again, even when a region contains nothing that stimulates my senses, it does not follow that it contains no bodies. I now realize that in these cases and many others I have been in the habit of misusing the order of nature. The right way to use the sensory perceptions that nature gives me is as a guide to what is beneficial or harmful for my mind-body complex; and they are vivid and clear enough for *that*. But it is a misuse of them to treat them as reliable guides to the essential nature of the bodies located outside me, for on that topic they give only very obscure and confused information. ...

- There is a great difference between the mind and the body. Every body is by its nature divisible, but the mind can't be divided. When I consider the mind—i.e. consider myself purely as a thinking thing—I can't detect any parts within myself; I understand myself to be something single and complete. The whole mind seems to be united to the whole body, but not by a uniting of parts to parts, because:· If a foot or arm or any other part of the body is cut off, nothing is thereby taken away from the mind. As for the faculties of willing, of understanding, of sensory perception and so on, these are not *parts* of the mind, since it is one and the same mind that wills, understands and perceives. ·They are (I repeat) not *parts* of the mind, because they are *properties* or *powers* of it. ·By contrast, any corporeal thing can easily be divided into parts in my thought; and this shows me that it is really divisible. ...