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[Brackets] enclose editorial explanations. Small ·dots· enclose material that has been added, but can be read as though it were part of the original text. Occasional •bullets, and also indenting of passages that are not quotations, are meant as aids to grasping the structure of a sentence or a thought. The basis from which this text was constructed was the translation by John Cottingham (Cambridge University Press), which is strongly recommended. First launched: July 2004 Last amended: June 2006

Meditations on First Philosophy in which are demonstrated the existence of God and the distinction between the human soul and the body
By René Descartes

1. On what can be called into doubt
2. The nature of the human mind, and how it is better known than the body
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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. It is true that these habitual opinions of mine are 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!

[This paragraph is presented as a further to-and-fro argument between two people. Remember that this isn't how Descartes wrote it.]

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 unshakeable.

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; these things, 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.

What else am I? I will use my imagination to see if I am anything more. I am not that structure of limbs and organs that is called a human body; nor am I a thin vapour that permeates the limbs -a wind, fire, air, breath, or whatever I imagine; for I have supposed all these things to be nothing -because I have supposed all bodies to be nothing-. Even if I go on supposing *them* to be nothing, *I* am still something. But these things that I suppose to be nothing because they are unknown to me -might they not in fact be identical with the *I* of which I am aware? I don't know; and just now I shan't discuss the matter, because I can form opinions only about things that I know. I know that I exist, and I am asking: what is this *I* that I know? My knowledge of it can't depend on things of whose existence I am still unaware; so it can't depend on anything that I invent in my imagination. The word 'invent' points to what is wrong with relying on my imagination in this matter: if I used imagination to show that I was something or other, that would be mere invention, mere story-telling; for imagining is simply contemplating the shape or image of a bodily thing. [Descartes here relies on a theory of his about the psychology of imagination.] That makes imagination suspect, for while I know for sure that I exist, I know that everything relating to the nature of body -including imagination- could be mere dreams; so it would be silly for me to say 'I will use my imagination to get a clearer understanding of what I am' -as silly, indeed, as to say 'I am now awake, and see some truth; but I shall deliberately fall asleep so as to see even more, and more truly, in my dreams'! If my mind is to get a clear understanding of its own nature, it had better not look to the imagination for it.

Well, then, what am I? A thing that thinks. What is that? A thing that doubts, understands, affirms, denies, wants, refuses, and also imagines and senses.

That is a long list of attributes for me to have -and it really is I who have them all. Why should it not be? Isn't it one and the same 'I' who now

doubts almost everything,
 understands some things,
 affirms this one thing - namely, that I exist and think - ,
 denies everything else,
 wants to know more,
 refuses to be deceived,
 imagines many things involuntarily, and
 is aware of others that seem to come from the senses?

Isn't all this just as true as the fact that I exist, even if I am in a perpetual dream, and even if my creator is doing his best to deceive me? Which of all these activities is distinct from my thinking? Which of them can be said to be separate from myself? The fact that it is I who doubt and understand and want is so obvious that I can't see how to make it any clearer. But the 'I' who *imagines* is also this same 'I'. For even if (as I am pretending) none of the things that I imagine really exist, I *really do imagine them*, and this is part of my thinking. Lastly, it is also this same 'I' who senses, or is aware of bodily things seemingly through the senses. 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.

All this is starting to give me a better understanding of what I am. But I still can't help thinking that bodies -of which I form mental images and which the senses investigate -are much more clearly known to me than is this puzzling 'I' that can't be pictured in the imagination. It would be surprising if this were right, though; for it would be surprising if I had a clearer grasp of things that I realize are doubtful, unknown and foreign to me - namely, bodies - than I have of what is true and known - namely my own self. But I see what the trouble is: I keep drifting towards that error because my mind likes to wander freely, refusing to respect the boundaries that truth lays down. Very well, then; I shall let it run free for a while, so that when the time comes to rein it in it won't be so resistant to being pulled back.

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 clear and distinct 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 make judgments'.]

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.

But what am I to say about this mind, or about myself? (So far, remember, I don't admit that there is anything to me *except* a mind.) What, I ask, is this 'I' that seems to perceive the wax so clearly? Surely, I am aware of •my own self in a truer and more certain way than I am of •the wax, and also in a much more distinct and evident way. What leads me to think that •the wax exists -namely, that I see it -leads much more obviously to the conclusion that •I exist. What I see might not really be the wax; perhaps I don't even have eyes with which to see anything. But when I *see* or *think I see* (I am not here distinguishing the two), it is simply not possible that I who am now thinking am not *something*. Similarly, that •*I exist* follows from the other bases for judging that •*the wax exists* -that I touch it, that I imagine it, or any other basis, and similarly for my bases for judging that anything else exists outside me. As I came to perceive the wax more distinctly by applying not just sight and touch but other considerations, all this too contributed to my knowing myself even more distinctly, because whatever goes into my perception of •the wax or of any other body must do even more to establish the nature of •my own mind. What comes to my mind from bodies, therefore, helps me to know my mind distinctly; yet all of that pales into insignificance -it is hardly worth mentioning - when compared with what my mind contains *within itself* that enables me to know it distinctly.

See! With no effort I have reached the place where I wanted to be! I now know that even bodies are perceived not by the senses or by imagination but by the intellect alone, not through their being touched or seen but through their being understood; and this helps me to know plainly that I can perceive my own mind more easily and clearly

than I can anything else. Since the grip of old opinions is hard to shake off, however, I want to pause and meditate for a while on this new knowledge of mine, fixing it more deeply in my memory.

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THIRD MEDITATION: The existence of God

(It is the passages in blue italics that I am particularly interested in. KB)

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 clear and distinct 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 clearly and distinctly was false. So I now seem to be able to lay it down as a general rule that whatever I perceive very clearly and distinctly 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 that depends 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 couldn't lead me into 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 several 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.

FOURTH MEDITATION: Truth and falsity

In these past few days I have become used to keeping my mind away from the senses; and I have become strongly aware that very little is truly known about bodies, whereas much more is known about the human mind and still more about God. So now I find it easy to turn my mind away from objects of the senses and the imagination, towards objects of the intellect alone; these are quite separate from matter, •whereas the objects of sense and imagination are mostly made of matter•. Indeed, none of my ideas of corporeal [= ‘bodily’] things is as distinct as my idea of the human mind, considered purely as a thinking thing with no size or shape or other bodily characteristics. Now, when I consider the fact that I have doubts—which means that I am *incomplete and dependent*—that leads to my having a clear and distinct idea of a being who is *independent and complete*, that is, an idea of God. And from the mere fact that •I exist and have such an idea, I infer that

•God exists and that every moment of my existence depends on him. This follows clearly; I am sure, indeed, that the human intellect can't know anything that is more evident or more certain. And now that I can take into account the true God, in whom all the treasures of wisdom and knowledge lie hidden, I think I can see a way through to knowledge of other things in the universe.

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 as 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?

Thinking harder about this, three helpful thoughts come to me. Two concern our knowledge of God's reasons generally; the third is specifically about human error. (1) I

realize that it is no cause for surprise if I don't always understand why God acts as he does. I may well find other things he has done whose reasons elude me; and that is no reason to doubt his existence. I am now aware that my nature is very weak and limited, whereas God's nature is immense, incomprehensible and infinite; so *of course* he can do countless things whose reasons I can't know. That alone is reason enough to give up, as totally useless, the attempt that physicists make to understand the world in terms of what things are *for*, that is, in terms of God's purposes. Only a very rash man would think he could discover what God's impenetrable purposes are.

(2) In estimating whether God's works are perfect, we should look at the universe as a whole, not at created things one by one. Something that might seem very imperfect if it existed on its own has a function in relation to the rest of the universe, and may be perfect when seen in that light. My decision to doubt everything has left me sure of the existence of only two things, God and myself; but when I think about God's immense power I have to admit that he did or *could* have made many things in addition to myself, so that there *may* be a universal scheme of things in which I have a place. If that is so, then judgments about what is perfect or imperfect in me should be made on the basis not just of my intrinsic nature but also of my role or function in the universe as a whole.

(3) My errors are the only evidence I have that I am imperfect. 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. God's will is incomparably greater than mine in two respects: it is accompanied by, and made firm and effective by, much more knowledge and power than I have; and it has far more objects than my will does—that is, God makes more choices and decisions than I do. But these comparisons—having to do with the amount

of knowledge that *accompanies* and *helps* the will, or with •the number of states of affairs to which it is *applied*—do not concern the will in itself, but rather its relations to other things. When the will is considered not relationally, but strictly *in itself*, God's will does not seem any greater than mine. The will is simply one's ability to do or not do something—to accept or reject a proposition, to pursue a goal or avoid something. More accurately: the freedom of the will consists in the fact that when the intellect presents us with a candidate for acceptance or denial, or for pursuit or avoidance, we have no sense that we are pushed one way or the other by any external force. I can be *free* without being *inclined both ways*. Indeed, the more strongly I incline in one direction the more free my choice is—if my inclination comes from •natural knowledge (that is, from my seeing clearly that reasons of truth and goodness point that way) or from •divine grace (that is, from some mental disposition that God has given me). Freedom is never lessened—indeed it is increased and strengthened—by •natural knowledge and •divine grace. When no reason inclines me in one direction rather than another, I have a feeling of indifference—that is, of its not mattering which way I go—and that is the poorest kind of freedom. What it manifests is freedom considered not as a perfection but rather as a lack of knowledge—a kind of negation. If I always saw clearly what was true and good, I should never have to spend time thinking about what to believe or do; and then I would be wholly free although I was never in a state of indifference.

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.

Here is an example of how (1) the will's behaviour when there *is* true understanding contrasts with (2) its behaviour when there *isn't*. (1) A while ago I asked whether anything in the world exists, and I came to realize that the fact of my raising this question shows quite clearly that *I* exist. I understood this so clearly that I couldn't help judging that it was true. This was not the 'couldn't help' that comes from being compelled by some external force. What happened was just this: *a great light in the intellect was followed by a great inclination in the will*. I was not in a state of indifference, feeling that I could as well go one way as the other; but this lack of indifference was a measure of how spontaneous and free my belief was. It would have indicated *unfreedom* only if it had come from the compulsion of something external, rather than coming from within myself. (2) As well as knowing that I exist, at least as *a thinking thing*, I have in my mind an idea of *corporeal nature*; and I am not sure whether my thinking nature—which makes me what I am—is the same as this corporeal nature or different from it. I take it that my intellect has not yet found any convincing reason for either answer; so I am indifferent with regard to this question—nothing pushes or pulls me towards one answer or the other, or indeed towards giving any answer.

The will is indifferent not only when the intellect is wholly ignorant but also when it doesn't have clear enough knowledge at the time when the will is trying to reach a decision. A probable conjecture may pull me one way; but when I realize that it *is* a mere conjecture and not a certain and indubitable reason, that in itself will push me the other way. My experience in the last few days confirms this: the mere fact that I found all my previous beliefs to be somewhat open to doubt was enough to switch me from confidently believing them to supposing them to be wholly false.

If when I don't perceive the truth clearly and distinctly enough I simply *suspend judgment*, 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.

I can't complain that God did not give me a greater power of understanding than he did: created intellects are naturally finite, and so they naturally lack understanding of many things. God has never owed me anything, so I should thank him for his great generosity to me, rather than feeling cheated because he did not give me everything.

Nor can I reasonably complain that God gave me a will that extends more widely than my intellect. The will is a single unitary thing; its nature is such, it seems, that there could be no way of taking away *parts* of it. Anyway, should not the great extent of my will be a cause for further thanks to him who gave it to me?

Finally, I must not complain that God consents to the acts of will in which I go wrong. What there is in these acts that comes from God is wholly true and good; and it is a perfection in me that I *can* perform them. Falsity and error are essentially a privation; and this privation isn't something to which God consents, because it isn't a thing at all. Indeed, when it is considered in relation to God as its cause, it isn't really a privation but rather a mere negation. That is, it is a mere fact about something that is not the case; it does not involve the notion that it *ought* to be the case. I ought to restrain my will when I don't understand, but it isn't true that God ought to have forced such restraint on me. God has given me the freedom to assent or not to assent in cases where he did not give me clear understanding; he is surely not to blame for that. But I am to blame for misusing that freedom by coming to conclusions on matters that I don't fully understand. Of course God easily could have arranged things so that, while keeping although my freedom and still being limited in what I understand, I never made a mistake. He could do this either by •giving me a clear and distinct understanding of everything that I was ever likely to think about; or by •forcing me always to remember that I ought not to form opinions on matters I don't clearly and distinctly understand. I can see that if God had made me this way, I would—considered just in myself, as if nothing else existed—have been more perfect than I actually am. But the universe as a whole may have some perfection that requires that some parts of it are capable of error while others are not, so that it would be a worse universe if all its parts were exactly alike in being immune from error. I am not

entitled to complain about God's giving me a lower role in his scheme of things ·by selecting me as one of the creatures that isn't protected from error·.

What is more, even if I have no power to avoid error by •having a clear perception of everything I have to think about, I can avoid it simply by •remembering to withhold judgment on anything that isn't clear to me. I admit to having the weakness that I can't keep my attention fixed on a single item of knowledge (·such as the no-judgment-when-clarity-of-perception-is-lacking rule·); but by attentive and repeated meditation I can get myself to remember it as often as the need arises, and thus to get into the habit of avoiding error.

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 clearly and distinctly reveals, I cannot possibly go wrong. Here is why. Every clear and distinct 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 clear and distinct perception must be true. So today 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.

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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 subjectmatter of pure mathematics, I perceive [here = 'conceive'] them clearly and distinctly; 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 they really exist. For when I think harder about what imagination is, it seems to be simply 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*], 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. 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 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 (something 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.

To begin with, I will (1) go back over everything that I *originally* took to be perceived by the senses, and reckoned to be true; and I will go over my reasons for thinking this. Next, I will (2) set out my reasons for *later* doubting these things. Finally, I will (3) consider what I should *now* believe about them.

(1) First of all then, I perceived by my senses that I had a head, hands, feet and other limbs making up the body that I regarded as part of myself, or perhaps even as my whole self. I also perceived by my senses that this body was situated among many other bodies that could harm or help it; and I detected the favourable effects by a sensation of pleasure and the unfavourable ones by pain. As well as pain and pleasure, I also had sensations of hunger, thirst, and other such appetites, and also of bodily states tending towards cheerfulness, sadness, anger and similar emotions. Outside myself, besides the extension, shapes and movements of bodies, I also had sensations of their hardness and heat, and of the other qualities that can be known by touch. In addition, I had sensations of light, colours, smells, tastes and sounds, and differences amongst these enabled me to sort out the sky, the earth, the seas and other bodies from one another. All I was *immediately* aware of in each case were my ideas, but it was reasonable for me to think

that what I was perceiving through the senses were external bodies that caused the ideas. For I found that these ideas came to me quite without my consent: I couldn't have *that* kind of idea of any object, even if I wanted to, if the object was not present to my sense organs; and I couldn't avoid having the idea when the object *was* present. Also, since the ideas that came through the senses were much more lively and vivid and sharp than ones that I formed voluntarily when thinking about things, and than ones that I found impressed on my memory, it seemed impossible that sensory ideas were coming from within me; so I had to conclude that they came from external things. My only way of knowing about these things was through the ideas themselves, so it was bound to occur to me that the things might resemble the ideas. In addition, I remembered that I had the use of my senses before I ever had the use of reason; and I saw that the ideas that I formed were, for the most part, made up of elements of sensory ideas. This convinced me that I had nothing at all in my intellect that I had not previously had in sensation. As for the body that by some special right I called 'mine': I had reason to think that it belonged to me in a way that no other body did. There were three reasons for this. •I could never be separated from it, as I could from other bodies; •I felt all my appetites and emotions *in* it and *on account of* it; and •I was aware of pain and pleasurable ticklings in parts of this body but not in any other body. But why should that curious sensation of pain give rise to a particular distress of mind; and why should a certain kind of delight follow on a tickling sensation? Again, why should that curious tugging in the stomach that I call 'hunger' tell me that I should eat, or a dryness of the throat tell me to drink, and so on? I couldn't explain any of this, except to say that nature taught me so. For there is no connection (or none that I understand) between the tugging sensation and the decision to eat, or between the sensation of something causing pain and the mental distress that arises from it. It seems that *nature* taught me to make these judgments about objects of the senses, for I was making them before I had any arguments to support them.

(2) Later on, however, my experiences gradually undermined all my faith in the senses. A tower that had looked round from a distance appeared square from close up; an enormous statue standing on a high column didn't look large from the ground. In countless such cases I found that the judgments of the external senses were mistaken, and the same was true of the internal senses. What can be more internal than pain? Yet I heard that an amputee might occasionally seem to feel pain in the missing limb. So even in my own case, I had to conclude, it was not quite certain that a particular limb was hurting, even if I felt pain in it. To these reasons for doubting, I recently added two very general ones. •The first was that every sensory experience I ever thought I was having while awake I can also think of myself as having while asleep; and since I don't believe that what I seem to perceive in sleep comes from things outside me, I didn't see why I should be any more inclined to believe this of what I think I perceive while awake. •The second reason for doubt was that for all I knew to the contrary I might be so constituted that I am liable to error even in matters that seem to me most true. (I couldn't rule this out, because I did not know—or at least was pretending not to know—who made me.) And it was easy to refute the reasons for my earlier confidence about the truth of what I perceived by the senses. Since I seemed to be naturally drawn towards many things that reason told me to avoid, I reckoned that I should not place much confidence in what I was taught by nature. Also, I decided, the mere fact that the perceptions of the senses didn't

depend on my will was not enough to show that they came from outside me; for they might have been produced by some faculty of mine that I didn't yet know.

(3) But now, when I am beginning to know myself and my maker better, although I don't think I should recklessly accept everything I seem to have acquired from the senses, neither do I think it should all be called into doubt.

[In this paragraph, Descartes uses 'distinct' in two ways. As before, he •calls an idea 'distinct' if it is sharp and clear. He also, for the first time in this work, •speaks of one thing as 'distinct from' another, meaning that they are two things, not one.] First, I know that if I have a clear and distinct thought of something, God could have created it in a way that exactly corresponds to my thought. So the fact that I can clearly and distinctly 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 clear and distinct idea of •myself as something that thinks and isn't extended, and one of •body as something that is extended and 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 clearly and distinctly 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 capacity 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 those faculties essentially involve 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 clearly and distinctly 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 the term 'nature', understood in the most general way, refers to God himself or to 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 that 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.

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 clear and distinct 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 information.

I have already looked closely enough at how I may come to make false judgments, even though God is good. Now it occurs to me that there is a problem about •mistakes I make regarding the things that nature tells me to seek out or avoid, and also regarding •some of my internal sensations. Some cases of this are unproblematic. Someone may be tricked into eating pleasant-tasting food that has poison concealed in it; but here nature urges the person towards the pleasant food, not towards the poison, which it doesn't know about. All this shows is that the person's nature doesn't know everything, and that is no surprise.

•Other cases, however, raise problems. They are ones where nature urges us towards something that harms us and this can't be explained through nature's not knowing something. Sick people, for example, may want food or drink that is bad for them. 'They go wrong because they are ill'—true, but the difficulty remains. A sick man is one of God's creatures just as a healthy one is, and in each case it seems a contradiction to suppose that God has given him a nature that deceives him. A badly made clock conforms to the laws of its nature in telling the wrong time, just as a well made and accurate clock does; and we might look at the human body in the same way. We could see it as a kind of machine made up of bones, nerves, muscles, veins, blood and skin in such a way that, even if there were no mind in it, it would still move exactly as it now does in all the cases where movement isn't under the control of the will or, therefore, of the mind. If such a body suffers from dropsy [a disease in which abnormal quantities of water accumulate in the body], for example, and is affected by the dryness of the throat that normally produces in the mind a sensation of thirst, that will affect the nerves and other bodily parts in such a way as to dispose the body to take a drink, which will make the

disease worse. Yet this is as *natural* as a healthy body's being stimulated by a similar dryness of the throat to take a drink that is good for it. In a way, we might say, it is *not* natural. Just as we could say that a clock that works badly is 'departing from its nature', we might say that the dropsical body that takes a harmful drink is 'departing from its nature', that is, from the pattern of movements that usually occur in human bodies. But that involves using 'nature' as a way of comparing one thing with another—a sick man with a healthy one, a badly made clock with an accurate one—whereas I have been using 'nature' not to make comparisons but to speak of what can be found in the things themselves; and this usage is legitimate.

When we describe a dropsical body as having 'a disordered nature', therefore, we are using the term 'nature' merely to compare sick with healthy. What has gone wrong in the mind-body complex that suffers from dropsy, however, is not a mere matter of comparison with something else. There is here a real, intrinsic error of nature, namely that the body is thirsty at a time when drink will cause it harm. We have to enquire how it is that the goodness of God does not prevent nature from deceiving us in this way. This enquiry will fall into four main parts.

- There is a great difference between the mind and the body. Whereas every body is by its nature divisible, the mind can't be divided. For when I consider the mind, or consider myself insofar as I am merely 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, as the following consideration shows. 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. This one argument would be enough to show me that the mind is completely different from the body, even if I did not already know as much from other considerations. [That refers to the paragraph immediately after the one labelled '[3]' in this Sixth Meditation.]

- The mind isn't immediately affected by all parts of the body but only by the brain—or perhaps just by the small part of it which is said to contain the 'common sense'. [Descartes is referring to the pineal gland. The 'common sense' was a supposed faculty, postulated by Aristotle, whose role was to integrate the data from the five specialized senses.] The signals that reach the mind depend upon what state this part of the brain is in, irrespective of the condition of the other parts of the body. There is abundant experimental evidence for this, which I needn't review here.

- Whenever any part of the body is moved by another part that is some distance away, it can be moved in the same fashion by any of the parts that lie in between, without the more distant part doing anything. For example, in a cord ABCD, if one end D is pulled so that the other end A moves, A could have been moved in just the same way if B or C had been pulled and D had not moved at all. Similarly, when I feel a pain in my foot, this happens by means of nerves that run from the foot up to the brain. When the nerves are pulled in the foot, they pull on inner parts of the brain and make them move; and nature has laid it down that this motion should produce in the mind a sensation of *pain as though occurring in the foot*. But since these nerves stretch from the foot to the brain

through the calf, the thigh, the lumbar region, the back and the neck, that same sensation of ‘pain in the foot’ can come about when one of the intermediate parts is pulled, even if nothing happens in the foot. This presumably holds for any other sensation.

•One kind of movement in the part of the brain that immediately affects the mind always produces just one kind of sensation; and it would be best for us if it were always the kind that would contribute the most to keeping us alive and well. Experience shows that the sensations that nature has given us are all of just such kinds; so everything about them bears witness to the power and goodness of God. For example, when the nerves in the foot are set in motion in a violent and unusual manner, this motion reaches the inner parts of the brain via the spinal cord, and gives the mind its signal for having a sensation of a pain as occurring in the foot. This stimulates the mind to do its best to remove the cause of the pain, which it takes to be harmful to the foot. God could have made our nature such that this motion in the brain indicated something else to the mind—for example, making the mind aware of the actual motion occurring in the brain, or in the foot, or in any of the intermediate regions. [Descartes is here contrasting the foot with other parts of the body, *and* contrasting a feeling of pain with a merely intellectual awareness that a movement is occurring.] But nothing else would have been so conducive to the continued well-being of the body. In the same way, when we need drink a certain dryness arises in the throat; this moves the nerves of the throat, which in turn move the inner parts of the brain. That produces in the mind a sensation of thirst, because the most useful thing for us to know at this point is that we need drink in order to stay healthy. Similarly in the other cases.

All of this makes it clear that, despite God’s immense goodness, the nature of man as a combination of mind and body is such that it is bound to mislead him from time to time. For along the route of the nerves from the foot to the brain, or even in the brain itself, something may happen that produces the same motion that is usually caused by injury to the foot; and then pain will be felt as if it were in the foot. This deception of the senses is natural, because a given kind of motion in the brain must always produce the same kind of sensation in the mind; and, given that this kind of motion usually originates in the foot, it is reasonable that it should produce a sensation indicating a pain in the foot. Similarly with dryness of the throat: it is much better that it should mislead on the rare occasion when the person has dropsy than that it should always mislead when the body is in good health. The same holds for the other cases.

This line of thought greatly helps me to be aware of all the errors to which my nature is liable, and also to correct or avoid them. For I know that so far as bodily well-being is concerned my senses usually tell the truth. Also, I can usually employ more than one sense to investigate the same thing; and I can get further help from my memory, which connects present experiences with past ones, and from my intellect, which has by now examined all the sources of error. So I should have no more fears about the falsity of what my senses tell me every day; on the contrary, the exaggerated doubts of the last few days should be dismissed as laughable. This applies especially to the chief reason for doubt, namely my inability to distinguish dreams from waking experience. For I now notice that the two are vastly different, in that dreams are never linked by memory with all the other actions of life as waking experiences are. If, while I am awake, anyone were suddenly to appear to me and then disappear immediately, as happens in sleep, so that I couldn’t see where he had come from or where he had gone to, I could reasonably judge that he was a ghost or an hallucination rather than a real man. But if I have a firm grasp of when, where and whence something comes to me, and if I can connect my perception

of it with the whole of the rest of my life without a break, then I am sure that in encountering it I am not asleep but awake. And I ought not to have any doubt of its reality if that is unanimously confirmed by all my senses as well as my memory and intellect. From the fact that God isn't a deceiver it follows that in cases like this I am completely free from error. But since everyday pressures don't always allow us to pause and check so carefully, it must be admitted that human life is vulnerable to error about particular things, and we must acknowledge the weakness of our nature.