

Editor's Note: Square [brackets] are used to enclose explanations of what is going on at certain points. Curly {brackets} enclose material that is to be read as though it were part of the original text. Each {bracketed} bit helps to express the author's line of thought; it is something he would have been willing to write; but the {brackets} are an admission that he did not in fact write it.

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

**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 following presents a series of considerations going first one way and then the other. It is set out here as though it were a discussion between two people, called Hopeful and Doubtful; but that is not how Descartes presented it.]

[Hopeful:] Yet although the senses sometimes deceive us about objects that are very small or distant, that does not 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 modeled 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 is not asleep; when I rub one hand against the other, I do it deliberately and know what I am doing. All this would not happen with such clarity to someone asleep.

[Doubtful:] Indeed! As if I did not 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, which itself reinforces the notion that I may be asleep!

Suppose then that I am dreaming - it is not true that I, with my eyes open, am moving my head and stretching out my hands. Suppose, indeed that I do not even *have* hands or any body at all. Still, it has to be admitted that the visions which 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 - something not remotely like anything that has ever been seen before - at least the colors 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 has not 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 do not 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 do not 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 is not 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 will not 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, colors, shapes, sounds and all external things are merely dreams which 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 cannot 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 labor 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 which 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 which 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; 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!

[The following is presented as a further to-and-fro argument between two people called "Hopeful" and "Doubtful". The reader is reminded that this is not how Descartes presented it.]

[Hopeful:] Still, how do I know that there is not something - not on that list - about which there is no room for even the slightest doubt? Is there not 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 cannot 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 do not 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 do not 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; these things, I thought, were done by *the soul*. 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 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 cannot 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 bodies -} 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 which 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 do not 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 which I later realized I had not perceived in that way. Thinking? At last I have discovered it - thought! This is the one thing that cannot 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; I cannot rule that out, under my present policy of rejecting everything that is not necessarily true. Strictly speaking, then, I am simply a thing that thinks - a mind, or intelligence, 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 which is called a human body; nor am I a thin vapor which permeates the limbs - a wind, fire, air, breath, or whatever I imagine; for I have supposed all these things 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 do not know; and just now I shall not 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 cannot depend on things of whose existence I am still unaware; so it cannot 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. [In that remark Descartes is relying 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 must 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? Is it not one and the same "I" who now doubts almost everything, understands some things, affirms this one thing, 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? Is not 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? These activities are all aspects of my thinking, and are all inseparable from myself. The fact that it is I who doubt and understand and want is so obvious that I cannot 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 cannot 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 cannot 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" which cannot 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 which 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 tighten the reins it will not 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 do not 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 color, 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 color changes, the shape is lost, the size increases; the wax becomes liquid and hot; you can hardly touch it, and if you do strike it, it no longer makes a sound. 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 which 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* which 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 does not belong to the wax, 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 is not 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 is not 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 than I will ever bring before my imagination. I am forced to conclude that the nature of this piece of wax is not 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 which 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 is not so and it never was. Rather, it is purely a perception 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 color 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 which 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. [A "faculty" is an ability or capacity.]

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 inquired 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

which a lower animal could not 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 do not admit that there is anything to me except a mind.) What, I ask, is this "I" which 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 understand 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.

THIRD MEDITATION: The existence of God

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 do not 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 would not 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 which 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 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 which 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? Did I not 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 which seemed most obvious. Whenever I bring to mind my old belief in the supreme power of God, I have to admit that if he wanted to God could 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 do not even know for sure that there is a God at all, the reason for doubt which 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 do not 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 cannot 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 not 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; 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 which 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 do not depend on my will, and thus do not depend simply on me. They often come into my mind without my willing them to: 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 have pushed me the wrong way on moral questions, and I do not see why I should trust them in other things.

Then again, although these ideas do not depend on my will, it does not 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 do not 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 which my will does not cause}.

Finally, even if these ideas do come from things other than myself, it does not 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 which I reckon to have an external source - and it makes the sun appear very small; the other is based on astronomical reasoning, 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 which seems to have come most directly from the sun itself in fact does not resemble it at all. These considerations show that it is not reliable judgment but merely some blind impulse that has led me to think that there exist things outside me which give ideas or images 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 all to be 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 which represent substances amount to something more - they contain within themselves more representative reality - than do the ideas which merely represent modes [= properties or qualities]. Again, the idea that gives me my understanding of a supreme God, eternal, infinite, immutable, omniscient, omnipotent and the creator of all things that exist apart from him,

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 cannot arise from nothing, and that what is more perfect - that is, contains in itself more reality - cannot 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 which an idea represents. A stone, for example, can begin to exist only if it is produced by something which contains - either straightforwardly or in some higher form - everything that is to be found in the stone; similarly, a cold thing cannot be made hot except by something that is itself hot or has a perfection that is of the same kind as heat; and so on. But it is also true that *the idea of* heat or of a stone can be caused in me only by something which 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 cannot 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 which contains at least as much *intrinsic* reality as there is *representative* reality in the idea. For if we suppose that an idea contains something which 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, is certainly not nothing, and so it cannot come from nothing.

It might be thought that since the reality which 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 cannot be an infinite regress of such ideas; eventually one must come back to an idea whose cause is not an idea, and *this*

cause must be a kind of archetype [= original pattern or model, from which copies are made] containing intrinsically all the reality or perfection which the idea contains only representatively. So it is clear to me by the natural light that my ideas are like pictures or images which can easily fall short of the perfection of the things from which they are taken, but which cannot exceed it.

The longer and more carefully I examine all these points, the more clearly and distinctly I recognize their truth. But what is my conclusion to be? If the representative reality of any of my ideas turns out to be so great that I am sure the same reality does not reside in me, either straightforwardly or in a higher form, and hence that I myself cannot be its cause, it will necessarily follow that *I am not alone in the world*, and that there exists some other thing which is the cause of this 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 cannot present any difficulty in this context, there are ideas which 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 could not 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 clearly and distinctly 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 colors, sounds, smells, tastes, heat and cold and the other qualities that can be known by touch, I think of these in such confused and obscure way that I do not 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 do not enable me to know whether cold is merely the absence of heat or vice versa, or whether both of them are real qualities, or neither is. If the right answer is that cold is nothing but the absence of heat, the idea which 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 do not 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 should not arise from myself, since they represent such a slight reality that I cannot even distinguish it from a non-thing.

With regard to the clear and distinct 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 is not extended, and of the stone as a thing that is extended and does not 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 which I can count; it is in these ways that I acquire the ideas of duration and

number which I can then transfer to other things. As for all the other elements which 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 contain within me whatever it takes to cause the ideas of these mere *modes*.}

So there remains only the idea of God: is there anything in that which could not 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 from what has been said it must be concluded 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 which 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, that is God, is in some way prior to my perception of the finite, that is 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 perfect being, which 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 with the ideas of heat and cold. On the contrary, it is utterly clear and distinct, 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 cannot 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 clear and distinct. It does not matter that I do not grasp the infinite, or that there are countless additional attributes of God which I cannot *grasp* and perhaps cannot 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 which 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 clear and distinct of all my ideas.

{Here is a possible objection to that line of thought.} Perhaps I am greater than I myself understand: perhaps all the perfections which I attribute to God are ones that I *do* have in some potential form, and they merely haven't yet shown themselves in actuality. My knowledge is gradually increasing, and I see no obstacle to its going on increasing to infinity. I might then be able to use this increased {and eventually infinite} knowledge to acquire all the other perfections of God. In that case, I already have the potentiality for these perfections - why should not that be enough to enable me to have caused the idea of them {that is, to have caused my idea of God}?

But all this [that is, the whole of the preceding paragraph] is impossible. First, though it is true that my knowledge is increasing, and that I have many potentialities which are not yet actual, this is all quite irrelevant to the idea of God, which contains absolutely nothing that is potential. Indeed, this gradual increase in knowledge is itself the surest sign of imperfection {because if I am learning more, that shows that there are things I do not know, and that is an imperfection in me}. What is more, even if my knowledge increases for ever, it will never actually be infinite, since it will never reach the point where it is not capable of a further increase; God, on the other hand, I take to be actually infinite, so that nothing can be added to

his perfection. Anyway, strictly speaking *potential* being is nothing; what it takes to cause the representative being of an idea is *actual* being.

If one concentrates carefully, all this is quite evident by the natural light. But when I relax my concentration, and my mental vision is blurred by the images of things I perceive by the senses, I lose sight of the reasons why my idea of more perfect being must come from a being which really is more perfect. So I want to push on with my inquiry, now asking a new question: If the more perfect being did not exist, could I exist? Well, if God did not exist, from what would I derive my existence? It would have to come from myself, or from my parents, or from some other beings less perfect than God (a being more perfect than God, or even one as perfect, is unthinkable). If I had derived my existence from myself, I would not now doubt or want or lack anything at all; for I would have given myself all the perfections of which I have any idea. So I would be God.

Here is a thought that might seem to undercut that argument. Perhaps I have always existed as I do now. In that case, wouldn't it follow that there need be no cause for my existence? No, it does not follow. For a life-span can be divided into countless parts, each completely independent of the others, so that from my existing at one time it does not follow that I exist at later times, unless some cause keeps me in existence - one might say that it creates me afresh at each moment. Anyone who thinks hard about the nature of time will understand that what it takes to bring something into existence is also needed to keep it in existence at each moment of its duration.

So I have to ask myself whether I have the power to bring it about that I, who now exist, will still exist a minute from now. For since I am nothing but a thinking thing - or anyway that is the only part of me that I am now concerned with - if I had such a power I would undoubtedly be aware of it. But I experience no such power, and this shows me quite clearly that I depend {for my continued existence} on some being other than myself.

Perhaps this being is not God, though. Perhaps I was produced by causes less perfect than God, such as my parents. No; for as I have said before, it is quite clear that there must be at least as much reality or perfection in the cause as in the

effect. And therefore, given that I am a thinking thing and have within me some idea of God, the cause of me - whatever it is - must itself be a thinking thing and must have the idea of all the perfections which I attribute to God. What is the cause of this cause of me? If it is the cause of its own existence, then *it is God*; for if it has the power of existing through its own might, then undoubtedly it also has the power of actually possessing all the perfections of which it has an idea - that is, all the perfections which I conceive to be in God. If on the other hand it gets its existence from another cause, then the question arises all over again regarding this further cause: Does it get its existence from itself or from another cause? Eventually we must reach the ultimate cause, and this will be God. It is clear enough that this sequence of causes of causes cannot run back to infinity, especially since I am dealing with the cause that not only produced me in the past but also preserves me at the present moment.

One might think this: *Several partial causes contributed to my creation; I received the idea of one of the perfections which I attribute to God from one cause and the idea of another from another. Each perfection is to be found somewhere in the universe, but no one thing has them all.* That cannot be right, because the unity or inseparability of all the attributes of God is one of the most important of the perfections that I understand him to have. The idea of his perfections as united in a single substance could not have been placed in me by any cause which did not also provide me with the ideas of the perfections themselves; for no cause could have made me understand that the perfections are united without at the same time showing me what they are.

Lastly, as regards my parents, even if everything I have ever believed about them is true, it is certainly not they who *keep* me in existence. Insofar as I am a thinking thing, indeed, they did not even make me; they merely brought about an arrangement of matter which I have always regarded as containing me (that is, containing my mind, for that is all I now take myself to be). I conclude, then, that the mere fact that I exist and have within me an idea of a most perfect being - that is, God - provides a clear proof that God does indeed exist.

It remains for me only to ask *how* I received this idea from God. I did not acquire 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. Nor is it something that I invented; for clearly I cannot take anything away from it or to 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 which does not invite 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 (not that he needed any mark other than the work itself). But the mere fact that God created me is a good reason for thinking 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 which is incomplete and dependent on something else, and which 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, and hence that he is God. The core of the argument is this: I could not exist with the nature that I have - that is, containing within me the idea of God - if God did not 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 which I cannot grasp but can somehow touch with my thought. This shows clearly that he cannot be a deceiver, since the natural light makes it clear that all fraud and deception depend on some defect.

But before examining this point more carefully and investigating other truths which may be derived from it, I want to pause here and spend some time contemplating God; to reflect on his attributes and to gaze with wonder and adoration on the beauty of this immense light, so far as the eye of my darkened intellect can bear it. For just as we believe through faith that the supreme happiness of the next life consists in contemplating the divine majesty, so experience tells us that this same contemplation, though much

less perfect, provides the greatest joy we can have in this life.

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 corporeal things, 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 corporeal}. Indeed, none of my ideas of corporeal 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 cannot 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 shows that he is malicious or weak; so God cannot be a deceiver.

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 does not want to deceive me, I am sure he did not 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 did not 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 which 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 which 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 is not a mere negation. {Pebbles and glaciers lack knowledge, and in them that lack is a mere negation - the absence of something which 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 primes in my head. But my tendency to error is not like that.} Rather, it is a *privation*, that is, a lack of some knowledge which 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 which lacks some perfection which 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 it is better that I should make mistakes than that I should not do 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 do not 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 cannot 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 I *may* have a place in the universal scheme of things. {If I have, then judgments as to 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) the intellect and (b) the will. {Let us consider these separately.} (a) The intellect does not affirm or deny anything; its role is only to present me with ideas regarding which I could make judgments; so strictly speaking it does not involve any error at all. There may be many existing things of which my intellect gives me no ideas, but it is not 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 do not 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 do not have; this is a purely negative fact about me {like the fact that I cannot fly; it does not mean that there is anything wrong with my nature}. (b) I cannot complain that God gave me a will or freedom of choice which is not extensive or perfect enough, since I know by experience that it is entirely without limits. My will is so perfect and so great that I cannot conceive of its becoming even more perfect or great; 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 cannot 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 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 not freedom considered as a perfection, but rather 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 which 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 which I do not 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 which I do not 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 behavior when there is true understanding contrasts with (2) its behavior when there is not}. (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 could not help judging that it was true. This was not the

"could not 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, in so far as I am *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 does not 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 do not 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 which I should have - and now I know what this privation consists in. It does not lie in the will which God has given me, nor 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 which I do not clearly understand.}

I cannot 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 which 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 is not something to which God consents, because it is not a thing at all. Indeed, when it is considered in relation to God as its cause, it is not 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 do not understand, but it is not 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 which I do not 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 (i) by giving me a clear and distinct understanding of everything that I was ever likely to think about; or (ii) by forcing me always to remember that I ought not to form opinions on matters I do not 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 which 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 which is not protected from error}.

What is more, even if I have no power to avoid error (i) by having a clear perception of everything I have to think about, I can avoid it (ii) simply by remembering to withhold judgment on anything that is not clear to me. It is a weakness in me that I cannot keep my attention fixed on a single item of knowledge at all times; 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 inquiry 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 cannot 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 take good care to do from now on.

FIFTH MEDITATION:

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

There are many inquiries still to be made about God's attributes, and many about my own nature (that is, the nature of my mind). I may take these up at some time; but right now I have a more pressing task. Now that I have seen how to reach the truth - what to do and what to avoid - I

must try to escape from the doubts which beset me a few days ago, and see whether anything can be known for certain about material objects.

Before inquiring into whether there are any such things, I should consider the *ideas* of them in my thought, in order to see which of those ideas are distinct and which confused.

I distinctly imagine *quantity* - that is, the length, breadth and depth of the quantity, or rather of the thing that is quantified. I also enumerate the thing's parts, to which I attribute various sizes, shapes, positions and movements; and to the movements I attribute various durations {, that is, I say how long each movement lasts}. Size, shape, position and so on are well known and transparent to me as *general kinds* of phenomenon, but there are also countless *particular* facts involving them which I perceive when I attend to them. The truths about all these matters are so open to me, and so much in harmony with my nature, that when I first discover any of them it feels less like learning something new than like remembering something I had known before, or noticing for the first time something which was already in my mind without my having turned my mental gaze onto it.

The most important point is that I find within me countless ideas of things which cannot be called nothing, even if they do not exist anywhere outside me. I am free to think of them or not, as I choose, but I did not 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* which 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 am forced to agree that the triangle has these properties, even if I did not give them a thought when the triangle first came into my mind. So they cannot 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 which 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 had not 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 clearly and distinctly perceive x to have a certain property, it follows that x really does have that property. Can I not turn this to account in a second argument to prove 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 do 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 clear and distinct as what is involved in 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, {so that we can 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 cannot be separated from the idea {or essence} of a triangle,

and as having-banks cannot be separated from the idea {or essence} of a river, so existence cannot be separated from the essence of God. [The river/banks example replaces Descartes's obscure one: he *seems* to say that the essence or idea of a mountain includes the idea of a valley, which is obviously wrong.] Just as it is self-contradictory to think of a river without banks, 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.

{This paragraph states an objection, which is met in the following paragraph.} So, I cannot think of God except as existing, just as I cannot think of a river without banks. From the latter fact, though, it certainly does not 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. Or so it seems.

But this involves false reasoning. From the fact that I cannot 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 cannot think of God except as existing it follows that *God* and *existence* are inseparable, which is to say that God really exists. My thought does not make it so; it does not 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 possible objection to this line of thought. "Admittedly, once I have supposed God to have all perfections, I must suppose that he exists, because existence is one of the perfections. But what is my warrant for supposing 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 do not 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 treasury, it is necessary that I attribute all perfections to him, even if I do not 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 then to conclude that the first and supreme being exists. Similarly, I do not 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 do not 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 clearly and distinctly - even pretend that all quadrilaterals can be inscribed in a circle. This kind of false pretence is vastly different from the true ideas which are innate in me, of which the first and chief is the idea of God. This idea is not 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. (1) God is the only thing I can think of whose existence necessarily belongs to its essence. (2) I cannot understand how there could be 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 abide for eternity. (3) I perceive many other attributes of God, none of which I can remove or alter.

Whatever method of proof I use, though, I am always brought back to the fact that nothing completely convinces me except what I clearly and distinctly perceive. Some things that I clearly and distinctly perceive are obvious to everyone; others can be learned only through more careful investigation, but once they are discovered they are judged to be just as certain as the obvious ones. (Compare these two truths about right-angled triangles: "The square on the hypotenuse equals the sum of the squares on the other two sides" and "The hypotenuse is opposite the largest angle". The former is less obvious than the latter; but once one has seen it, one believes it just as strongly.) {Truths about God are not in the immediately obvious class, but they *ought* to be.} If I were not swamped by preconceived opinions, and if my

thoughts were not hemmed in and battered by images of things perceived by the senses, I would acknowledge God sooner and more easily than anything else. The supreme being exists; God, to whose essence alone existence belongs, exists; what is more self-evident than that?

Although I came to see this only through careful thought, I am now just as certain of it as I am of anything at all. Not only that, but I see that all other certainties depend on this one, so that without it I cannot know anything for sure. {The next two paragraphs explain why this is so.}

While I am perceiving something clearly and distinctly, I cannot help believing it to be true. That is a fact about my nature, here is another: I cannot fix my mind's eye continually on the same thing, so as to keep perceiving it clearly; so that sometimes the arguments that led me to a certain conclusion slip out of my focus of attention, though I remember the conclusion itself. That threatens me with the following state of affairs, from which I am protected only by being aware of the existence of God:

In a case where I am not attending to the arguments that led me to a conclusion, my confidence in the conclusion might be undermined by arguments going the other way. When I think hard about triangles, for instance, it seems quite obvious to me - steeped as I am in the principles of geometry - that a triangle's three angles are equal to 180; and while I am attending to the proof of this I cannot help believing it. But as soon as I turn my mind's eye away from the proof, then in spite of still remembering *that* I perceived it very clearly {but without now getting it clear in my mind again}, I can easily doubt its truth. So nothing is ever finally established and settled - I can have no true and certain knowledge, but only shifting and changeable opinions. For I can convince myself that I am naturally liable to go wrong sometimes in matters which I think I perceive as evidently as can be. This seems even more likely when I remember that I have often regarded as certainly true propositions which other arguments have later led me to think false.

That is what my situation would be if I were not aware of the existence of God. 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 which I clearly and distinctly perceive must be true. So even when I am no longer attending to the arguments which led me to accept this, as long as I remember that I clearly and distinctly 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. That applies not only to this one matter {of the principle that what is clearly and distinctly perceived is true}, but to anything which I remember ever having proved in geometry and the like. Why should I call these matters into doubt? (1) Because I am so built as to be prone to frequent error? No: I now know that when I have something in mind in a transparently clear way I cannot be in error about it. (2) Because I have in the past regarded as certainly true many things which I afterwards recognized to be false? No: the things which I later came to doubt had not been clearly and distinctly perceived in the first place: I had come to accept them for reasons which I later found to be unreliable, because I had not yet discovered this rule for establishing the truth. (3) Because I may be dreaming, so that my present thoughts have as little truth as those of a person who is asleep? I put this objection to myself a while ago. It does not change anything, because if something is evident to my intellect, even when I am dreaming, then it is true.

Thus I see plainly that the certainty and truth of all knowledge depends strictly on my awareness of the true God. So much so that until I became aware of him I could not perfectly know anything. Now I can achieve full and certain knowledge of countless matters, both concerning God himself and other things whose nature is intellectual, and also concerning the whole of that corporeal nature which is the subject-matter of pure mathematics.

SIXTH MEDITATION:

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

It remains for me to consider whether material things exist. Insofar as they are the subject-matter of pure mathematics, I perceive [= 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. My faculty of imagination, which I am aware of using

when I turn my mind to material things, also suggests that they really exist.

To make clear how it suggests this, I will first examine how imagination differs from pure understanding. When I imagine a triangle, for example, I do not 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 [= a thousand-sided figure; pronounced *kill-ee-a-gon*], although I understand quite well that it is a figure with a thousand sides, I do not 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 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 would give me no help in recognizing the properties which 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.

It is not essential to me that I can imagine, as it is that I can understand; for even if I lacked the 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 grasp that this "something" might be material things, bodies, which relate in a certain way to my own body. So it may be that imagining differs from pure understanding 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 which 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 inquiry I still cannot see how, on the basis of the idea of corporeal [= bodily] nature which I find in my imagination, to prove for sure that some body exists.

As well as the corporeal nature which is the subject-matter of pure mathematics, I am also accustomed to imagining colors, 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 [= 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 which 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 which could harm or help it; and I detected the favorable effects by a sensation of pleasure and the unfavorable 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, colors, 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. What I was *immediately* aware of in each case was only my ideas, but it was reasonable for me to think that what I was perceiving through the senses were external bodies which caused the ideas. For I found that these

ideas came to me quite without my consent: I could not have such an idea any object, even if I wanted to, if the object was not present to my sense organs; and I could not 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 which 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 which I had not previously had in sensation. As for the body which 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 which I call "hunger" tell me that I should eat, or a dryness of the throat tell me to drink, and so on? I could not 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 which had looked round from a distance appeared square from close up; an enormous statue standing on a high column did not 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 do not believe that what I seem to perceive in sleep comes from things outside me, I did not 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 which seem to me most true. (I could not 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 which 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 did not 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 which I did not yet know.

[3] But now, when I am beginning to know myself and my maker better, although I do not think I should recklessly accept everything I seem to have got from the senses, neither do I think it should all be called into doubt.

[In this paragraph, Descartes uses "distinct" in two ways. (i) As before, he calls an idea "distinct" if it is absolutely sharp and clear. (ii) He also, for the first time in this work, speaks of one thing as being "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 is not 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 cannot 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* which acts; so I see that I differ from my faculties as a thing differs from its properties. Of course there are other faculties - like 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 cannot 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 which actually *has* (either in a straightforward way or in a higher form) all the reality which is *represented* in the ideas that it produces. Either [i] this substance is a body, in which case it will straightforwardly contain everything that is represented in the ideas; or else [ii] 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 [ii], and} be confident that God does not transmit sensory ideas to me either directly from himself or through some creature which 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 is not 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 should not 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 would not *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 which 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 colors, sounds, smells and tastes, as well as differences in heat, hardness and so on; from which I infer that the bodies which cause these sensory perceptions differ from one another in ways that *correspond* to the sensory differences, though perhaps they do not *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 color which I perceive through my senses is also present in the body that I perceive; that in a body which is bitter or sweet there is the same taste which I experience, and so on; that stars and towers and other distant bodies have the same size and shape which 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 cannot 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 does not 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 is 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. In these cases and many others I have, as I now realize, been in the habit of misusing the order of nature. The right way to use the sensory perceptions which 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 they give only very obscure information about that.

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 does not know about. All this shows is that the person's nature does not know everything, and that is no surprise.

{Other cases, however, raise problems. They are ones where} nature urges us towards something which harms us {and this cannot 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 which 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 is not 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 which 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 which 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 which takes a harmful drink is "departing from its nature", that is, from the pattern of movements which 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 inquire how it is that the goodness of God does not prevent nature from deceiving us in this way. {This inquiry will fall into four main parts.}

[i] Whereas every body is by its nature divisible, the mind cannot be divided. For when I consider the mind, or consider myself insofar as I am merely a thinking thing, I cannot 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. 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 labeled "[3]" in this Sixth Meditation.]

[ii] The mind is not 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 there is no need to review here.

[iii] Whenever any part of the body is moved by another part which is some distance away, it can be moved in the same fashion by any of the parts which 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 it were 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.

[iv] One kind of movement in the part of the brain that immediately affects the mind always produces just one kinds 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 which 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 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 which 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 could not 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 is not a deceiver it follows that in cases like this I am completely free from error. But since everyday pressures do not 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.