Dialogues on Metaphysics and Religion

Nicolas Malebranche

[Brackets] enclose editorial explanations. Small ·dots· enclose material that has been added, but can be read as though it were part of the original text. Occasional •bullets, and also indenting of passages that are not quotations, are meant as aids to grasping the structure of a sentence or a thought. Every four-point ellipsis . . . . indicates the omission of a brief passage that seems to present more difficulty than it is worth. Larger omissions are reported, between brackets, in normal-sized type. The numbering of the segments of each dialogue is Malebranche's.

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FIRST DIALOGUE

The soul and its distinctness from the body. The nature of ideas. The world that our bodies inhabit and that we *look at* is quite different from the one we *see*.

Theodore: Well then, my dear Aristes, since this is what you want, I will have to talk to you about my metaphysical visions. But for that I'll need to go indoors, away from the distractions of this enchanting garden. I'm afraid of taking as •immediate responses of inner truth what are really •snap judgments, or •obscure principles generated by the laws of the union of soul and body; and I'm more likely to do that when there is all this background noise going on. So let us go into your study so that we can more easily dig down into ourselves. Let's try not to allow anything to prevent us from consulting the master that we have in common, universal *reason*. At our discussions it will be *inner truth*—·the voice of reason·—that is in charge, dictating what I say to you and what you are willing to learn through me. In short, reason *and reason alone* will judge and decide our differences, because today we are thinking only of philosophy; and, although you entirely accept the authority of the church, you want me to speak to you at first as though you didn't accept truths of faith as principles of our knowledge. Faith must in fact guide the steps of our minds, but only sovereign reason can fill them with understanding.

Aristes: Let us go where you like, Theodore. I dislike everything that I see in this world of material things that we take in through the senses, now that I've heard you speak of another world entirely filled with beautiful things that are intelligible. [In this work, a thing is called 'intelligible' if it can be known about through the intellect, i.e. through sheer thinking; the contrast is with things that are 'sensible', meaning that they can be known about through the senses—e.g. they are audible or visible or the like.] Take me away to that happy, enchanted region; get me to survey all those wonderful things you told me about the other day with such confident eloquence. Let's go! I'm ready to follow you into the land that you believe can't be reached by people who listen only to their senses.

Theodore: In gently making fun of me, you are following the hidden promptings of your ever-playful imagination, but I have to say that you are speaking of something that you don't understand. In fact I *shan't* take you into a foreign land, but perhaps I'll teach you that you are in fact a foreigner in your own country. I'll teach you that the world you live in is not what you •believe it to be, since it is not what you •see or •feel it as being. You base your beliefs about your environment on your senses, and you haven't an inkling of how enormously much they delude you. Your senses give reliable testimony concerning how to stay alive and physically healthy, but about *everything* else there is no accuracy, no truth, in what they say. You will see this, Aristes, without going outside yourself, without my taking you away 'to that enchanted region' that your •imagination represents. Imagination is a lunatic that likes to play the fool. Its leaps and unforeseen starts distract you, and me as well. Please let's keep •reason uppermost in our discussions. We want to hear its pronouncements, but it is silent and elusive when imagination pushes itself forward; and we, instead of silencing the imagination, listen to its little jokes and linger on the various phantoms that it offers us. Make it behave itself in the presence of reason, therefore; silence it if you wish to hear clearly and distinctly the responses of inner

truth. [Aristes apologizes for his little joke, and Theodore accepts that, again remarking on Aristes' lively imagination. Then:]

Theodore: ....What I have just said to you was simply to make you understand that you have a terrible antagonism to the truth. The quality that makes you brilliant in the eyes of men....is the most implacable enemy of reason. I am putting to you a paradoxical thesis whose truth I can't now demonstrate. But you will soon acknowledge it from your own experience, and you may see the reasons for it in the course of our discussions. There is still a long way to go before that. But, believe me, clever minds are as closed to the truth as stupid minds are, the only difference being that ordinarily the stupid mind respects the truth whereas the clever mind regards it as of no account. Still, if you are determined to curb your imagination you'll meet no obstacles to entering the place where reason gives its responses; and when you have listened to it for a while you will find that what has appealed to you up to now is *negligible*, and (if God touches your heart) you will even find it *disgusting*.

Aristes: Then let us go quickly, Theodore.... Certainly I'll do everything you ask of me.... Now that we have reached my study, is there anything here to prevent us from entering into ourselves and consulting reason? Do you want me to close the shutters so that darkness will conceal anything in the room that is visible and can affect our senses?

Theodore: No, my dear fellow. Darkness affects our senses as well as light. It does removes the glare of the colours, but darkness at this time of day might put our imaginations into a flutter. Just draw the curtains.... Now, Aristes, reject everything that has entered your mind through the senses; silence your imagination; let *everything* be perfectly silent in you. Even forget, if you can, that you have a body, and think only of what I say to you.... Attention is all I ask of you. No conquests are made in the land of truth unless the mind battles resolutely against impressions from the body.

Aristes: I think that is so, Theodore. Speak. But let me interrupt you when there is something that I don't understand.

Theodore: Fair enough. Listen. **1.** ·A property has to be *had* by something·. There couldn't be an instance of a property that was had by The Nothing [*le néant*]. Now, I *think*; so *I am*—·because the property of thinkingness has an instance, there has to be a thing (not The Nothing!) that *has* it, i.e. a thing that *does* the thinking, and that is myself·. But *what* am I—the *I* that thinks whenever I'm thinking? Am I a body, a mind, a man?.... Well, can a body think? Is a thing that has length, breadth, and depth capable of reasoning, desiring, sensing? Certainly not; for the only states that such an extended thing can have consist in spatial relations; and obviously *those* are not perceptions, reasonings, pleasures, desires, sensations—in a word, thoughts. Since my perceptions are something entirely different from spatial relations, and since they are certainly *mine*, it follows that this *I* that thinks, my very substance, is not a body.

Aristes: It seems clear to me that any details concerning *how* something is extended are purely concerned with spatial relations—·for instance a thing's shape consists in a set of facts about how its parts are spatially related to one another·—and thus that something extended can't know, will, or sense. But my body may be something other than extended. For it seems to me that what feels the pain of a jab is my •finger, what desires is my •heart, what reasons is my •brain. My inner sense of what occurs in me tells me this. Prove to me that my body is *merely* something extended and then I'll admit that my mind—what thinks, wills, and

reasons in me—is not material or corporeal [= 'of the nature of a body'].

2. Theodore: So, Aristes, you think your body is composed of some substance that isn't extended? Don't you realize that extension is all a mind needs to work with to construct brain, heart, arms, hands, all the veins, arteries, nerves, and the rest of your body? ·And as well as being *sufficient* for your body, extension is also *necessary* for it·. If God destroyed your body's extension, would you still have a brain, arteries, veins, and the rest? Do you suppose that a body can be reduced to a mathematical point? I don't doubt that God could make everything in the universe from the extension of a single grain of sand; but surely when there is absolutely *no* extension there is no corporeal substance. Think hard about this; and so that you'll become convinced of it, take note of what comes next.

Whatever exists either •can be conceived by itself or •can't be conceived by itself. There's no middle ground, for the two propositions are contradictories [= 'are propositions that cannot both be true and cannot both be false'].

Now, if something can be conceived all on its own as existing without depending on anything else—can be conceived without our idea of it ·also· representing some other thing—then it is certainly a being or a substance; and if something can't be conceived by itself with no thought of anything else, then it is a *state* of a substance or a *way* that substance is.

[In this next bit, Theodore uses the expression *l'étendue*; this can mean 'extendedness' or 'that which is extended'. It seems that the former names a property, the latter a thing that *has* the property. Theodore holds, as a matter of metaphysics, that there isn't any *thing* that *has* extension; there is only *the extended*, or *l'étendue*. In this part of the text, the untranslated French term will be used, because Theodore's doctrine comes out in English either as •plainly wrong ('Extendedness is a thing, not a property') or as •trivially true ('What is extended is a thing, not a property'). This will come up again in the tenth dialogue, section 9.] For example, we can't think of roundness without thinking of *l'étendue*; so roundness is not a being or substance but a state. We can think of *l'étendue* without thinking of any other thing in particular. Hence, *l'étendue* isn't •a state that a being can be in; it is itself •a being. . . . Our only way of distinguishing •substances or beings from •states or ways-of-being is through this difference in how we perceive ·or think about· them.

Well, then, go back into yourself! Don't you find that you can think of *l'étendue* without thinking of anything else? Don't you find that you can perceive *l'étendue* all by itself? So *l'étendue* is a substance and in no way a state or manner of being. Hence, *l'étendue* and matter are one and the same substance. Now, I can perceive my thought, my desire, my joy, my sadness, without thinking of *l'étendue*, and even when pretending that *l'étendue* doesn't exist. So my thought and the rest are not states of *l'étendue*, but states of a substance that thinks, senses, and desires, and is quite different from *l'étendue*.

All the properties that come under extension—all the different ways of being extended—consist in spatial relations. (·For example, a thing's being *cylindrical* can be expressed purely in terms of how far some of its parts are from some others·.) Now, obviously my pleasure, desire, and thoughts are not •spatial relations; for •*these* can be compared, measured, exactly fixed by principles of geometry, whereas we can't in this way compare or measure our perceptions and sensations. So my soul is not material. It is not the way-of-being of my body. It is *a substance* that thinks, and has no resemblance to the extended substance [*la substance étendue*] of which my body is composed.

Aristes: That seems to be demonstrated. But what conclusion can you draw from it?

3. Theodore: I can draw endlessly many conclusions, for the principal tenets of philosophy are based on the soul's being distinct from the body—tenets including the doctrine that we are immortal. A word about that in passing: if the soul is a substance distinct from the body rather than being a property of the body, it obviously follows that even if death *were* to destroy the substance of which our bodies are composed—which in fact it *doesn't*—it wouldn't follow that our souls were destroyed. But it's not yet time to get to the bottom of this important question; before that, there are many other truths I must prove for you. Try to concentrate on what comes next.

Aristes: Proceed. I'll follow with all the attention I can muster.

4. Theodore: I think of many things: of

a number,
a circle,
a house,
certain particular beings,
being.

Now all this exists, at least while I am thinking of it. Certainly, when I think of a circle, of a number, of being, of the infinite, or of a certain finite being, I perceive *realities*. For if the circle I perceive were •nothing, in thinking of it I would be thinking of •nothing, ·which is tantamount to not thinking of anything·. Thus, I would be thinking and not thinking at the same time! And another point: the circle that I have in mind has properties that no other shape has. So the circle exists when I think of it, because *nothing* doesn't have properties—there's no question of one nothing being different from another because their properties are different.

Aristes: What, Theodore! Everything you think of exists? Does your mind give existence to this study, this desk, these chairs, because you think of them?

Theodore: Slow down! I tell you that everything that I think of *is*, or (if you will) *exists*. The study, the desk, the chairs that I see—all this exists at least while I see it. But you are running together •what I am seeing with •a piece of furniture that I don't see. There's as much difference between the desk that I do see and the desk that you think you see as there is between your mind and body.

Aristes: I understand you in part, Theodore, and I'm embarrassed at having interrupted you. I am convinced that everything we see or think of contains some reality, ·but· you aren't speaking of objects but of ideas of objects. Our *ideas* of objects do no doubt exist while they are present in our minds. But I thought you were speaking of the objects themselves.

5. Theodore: 'Of the objects themselves'! Ah, we're not there yet! I am trying to present my reflections in an orderly way . You would be surprised at how many principles are needed if one is to demonstrate things that no-one has any doubt about. Does anyone doubt that he has a body? walks on solid ground? lives in a material world? But you will soon know something that few people understand, namely that while our bodies walk about in •a corporeal world our minds are unceasingly moving in an •intelligible world which affects them and thereby becomes •sensible to them.

While taking their ideas of things to be *nothing*, men ·go to the other extreme when they· credit the created world with having far *more* reality than it has. They don't doubt the existence of •objects, and they attribute to them many qualities that they don't have. Yet they don't so much as *think about* the reality of their •ideas. That's because they

listen to their senses instead of consulting inner truth. For, once again, it is far easier to demonstrate the reality of ideas—that 'other world entirely filled with beautiful things that are intelligible', as you put it—than to demonstrate the existence of the material world. Here is why.

Ideas exist eternally and necessarily, whereas a corporeal world exists only because God chose to create it. In order to see the intelligible world, therefore, we need only to consult *reason*, which contains intelligible ideas that are eternal and necessary, the model on which the ·sensorily· visible world is based; and that's something that any rational mind can do. As for the material world: well, it is in itself invisible (·I'll explain this later·), but we can *judge that it exists*, and for that we need God to reveal it to us. His choices ·about what material things to create· were purely *his*, depending only on his will; we can't learn about them from reason, which deals only in necessities. [Theodore speaks of reason as *containing* ideas because he thinks of reason—which Malebranche nearly always spells with an initial capital—as a *thing*. We learn later that it is *the mind of God*, and since God *is* a mind we could take it that 'reason' is another name for God. In this version, however, 'reason' is used instead of 'Reason' for stylistic reasons.]

Now, God reveals the facts about what he has created in two ways—•through the authority of holy scripture and •by means of our senses. •Accepting the authority of scripture—and we can't reject it!—we can rigorously demonstrate *that there are bodies*. •And our senses can sufficiently assure us of *the existence of this and that body in particular*. But this second way is not now infallible: here's someone who thinks he sees his enemy in front of him when really the man is far away; here's another who thinks he has four paws when really he has only two legs; here's a third who feels pain in his arm which was amputated long ago. Thus, ·the testimony of the senses, which I call· *natural revelation*. . . .is at present subject to error—I'll tell you why later. But *special revelation* ·such as we have in holy scripture· can never directly lead to error, since God can't want to deceive us. This has been a short digression to give you a glimpse of certain truths that I'll prove to you in due course; I wanted to make you curious about them. . . . Now back to the main thread. Listen!

I think of a number, a circle, a study, your chairs—in short, I think of such and such *beings*. I also think of *being* ·as such·—which is to think of the infinite, of being that isn't determined or limited in any way. All these ideas have some reality at the time I think of them. You won't doubt this, because ·you are aware that· Nothing has no properties and these ideas do have properties. They light up the mind, enabling it to know them; some even strike the mind in a way that enables it to *sense* them, and this comes about in hundreds of different ways. Anyway, the properties of some ideas certainly differ from the properties of others; ·so they *do have* properties, so they *are real*·. Because the reality of our ideas is genuine, and even more because this reality is necessary, eternal, and unchangeable, it's clear that. . . here we go! you and I are whisked off to a world other than the one our bodies inhabit, a 'world entirely filled with beautiful things that are intelligible'.

Let us suppose, Aristes, that God were to annihilate everything he has created except you and me, your body and mine. . . . Let us suppose further that God were to impress on our brains all the same traces ·that he has in fact impressed·—or rather that he were to present to our minds all the same ideas that we in fact have in our minds today. On that supposition, Aristes, in which world would we spend the day? Wouldn't it be in an intelligible world?

Now note this well: **that intelligible world is the one that we *do* exist and live in, though each of us animates a body that lives and walks around in another world**. The

intelligible world is the one we contemplate, admire, and sense. But the world that we *look at*—the world we take account of when we look around us—is simply *matter*, which is invisible in itself and has none of the beauties that we sense and admire when we look at it. Think hard about this:

> If the ·material· world were destroyed, it would have no beauty. (That is because it would be nothing; and Nothing has no properties, and so doesn't have the property of being beautiful.) Now, if the world were turned into nothing but God still produced the same traces in our brains—or rather presented to our minds the same ideas that are now produced in the presence of objects—we would see the same beauties ·as we do now·. So the beauties we see are not •material beauties; they are •intelligible beauties that are made sensible as a result of the laws that govern the union of soul and body. In supposing matter to be annihilated we don't suppose the annihilation of the beauties we see when we look at the objects surrounding us.

Aristes: I am afraid, Theodore, that there's something wrong in your supposition. If God destroyed this room, it certainly wouldn't be visible any longer; for 'Nothing has no properties'!

6. Theodore: You're not following me, Aristes. Your room is absolutely invisible in itself. You say that if God destroyed the room it wouldn't then be visible because Nothing has no properties. That would be true if your room had the property of being visible; but it doesn't! What I see when I look at your room—i.e. when I turn my eyes on all sides to take it in—would still be visible even if your room were destroyed and even, I may add, if it had never been built! I maintain that someone who has never left China can see everything I see when I look at your room, provided that his brain goes through the same movements that mine does when I survey the room—which is perfectly possible. People with a high fever, and people who sleep ·and dream·—don't they see chimeras of all sorts that never were? What they *see* exists, at least while they see it; but what they *think they see* doesn't exist. . . .

I tell you again, Aristes—strictly speaking your room is not visible. It's not really your room that I see when I look at it, because I could very well see what I am now seeing even if God had destroyed your room. •The dimensions that I see—intelligible dimensions that represent to me these spaces in your room—are unchangeable, eternal, and necessary, and they don't occupy any place. The dimensions of your room, on the other hand, are variable and destructible, and they take up space. But I am afraid that by telling you too many truths I am now multiplying your difficulties! For you seem to have some trouble distinguishing •ideas, the only things that are visible in themselves, from •the objects that ideas *represent*—objects that are invisible to the mind since they can't act on it or be presented to it.

Aristes: Indeed, I am rather at a loss, because I have trouble following you into this land of ideas that you say is genuinely real. I can't get a *grip* on anything that doesn't involve *body*. As for your 'ideas': I can't help thinking they are genuine, for the reasons you have given me, but there seems to be almost nothing *solid* about them. Tell me this: what happens to our ideas when we stop thinking of them? It seems to me that they return to nothing. And if that is right then your 'intelligible world' is destroyed. If the intelligible room that I now see is annihilated when I close my eyes, its reality doesn't amount to much! And if by opening my eyes I can create an intelligible world, that world certainly amounts to less than the one our bodies live in.

7. Theodore: You are right about that last point, Aristes. If you bring your ideas into existence and can annihilate them with a wink of an eye, there is not much to them. But if they are eternal, unchangeable, necessary—in short, *divine*—they will certainly be more considerable than matter, which is powerless and absolutely invisible in itself. Can you really believe that when you decide to think of a circle, the substance (so to speak) of which your idea is made is brought into existence by *you* and will be annihilated as soon as *you* choose to stop thinking of it? Be careful here! If you bring your ideas into existence, it is by willing ·or deciding· to think of them. But how can you decide to think of a circle if you don't already have some idea of it from which it can be fashioned and formed? Can you decide to make something of which you have no knowledge? Can you make something out of nothing? Certainly you can't decide to think of a circle if you don't already have the idea of it—or at least an idea of *l'étendue* of which you can consider certain parts without thinking of others. You can't come to see it close up, see it *clearly*, unless you already see it confusedly, as though from a distance. Your attention •takes you to it, •makes it present to you, even •shapes it; but obviously your attention doesn't make it out of nothing. Your lack of attention takes you away from it, but it doesn't annihilate it. If it *did*, how could you have a desire to produce it again? ·Such a desire involves the thought

I want to have in my mind the idea of. . .

but how can you complete this by

. . . a circle

if you have absolutely no idea of a circle already?· Having no such idea, you have no model that you could use in re-making the idea of *circle* in your mind. Isn't it clear that you couldn't do this?

Aristes: Clear? Well not to me, Theodore. You win the argument, but you don't convince me. •This earth is real: I feel it; when I stamp down on it, it resists me; there's some solidity to it. But that •my ideas have some reality independent of my thought, existing even when I'm not thinking of them—that's what I can't get myself to accept.

8. Theodore: That is because you weren't able to enter into yourself to consult reason. Tired from the hard work of attending ·to reason·, you have listened to your imagination and your senses, which speak to you even when you haven't asked them anything! You haven't reflected enough on the proofs I gave you that the senses can deceive. Not long ago there was a man, otherwise quite rational, who thought there was water up to his waist and was always afraid it would rise and drown him. He felt that water as you feel your earth. . . . People could talk him out of this error, but he soon fell back into it. When a man thinks he has been turned into a cock or an ox, he senses himself as having in place of his legs the feet of a cock, in place of his arms the legs of an ox, in place of his hair a comb or horns. Why can't you see that the resistance you feel when you stamp is only a sensation striking your soul? that all our sensations are absolutely independent of objects? Haven't you ever, while asleep, felt a heavy body on your chest that kept you from breathing? or that something struck and even wounded you? or that you struck others, walked, danced, jumped on solid ground? You think this floor exists because you feel it resisting you. Well then, ·if *reality* is a matter of *resistance*·, does it follow that air is less real than the floor because it has less solidity? Is ice more real than water because it is harder? But you are twice mistaken—·once about the floor, once about your ideas·. **(1)** The floor resists *your foot*, I agree. But a body can't resist *a mind*; so when you stamp with your

foot and have a sensation of resistance or solidity—a sign of something resisting your mind—what causes *that* resistance is something entirely different from the floor.

Still, I accept that the floor resists you. **(2)** But do you think that your ideas *don't* resist you? Then try to show me two unequal diameters of a single circle or three equal diameters in an ellipse! Try to find the square root of 8 or the cube root of 9! Try to make it right that we do to others what we wouldn't want others to do to us! Or, to take an example relating to yours, try to make two feet of intelligible extension equal one. (·Note that I say *intelligible* extension. The point is not that a two-foot long *object* can't be squashed down to half of that length. I'm talking about two feet considered as a length in geometry, an abstract length, something that you know about by *thinking* not by *sensing*. Try making a two-foot item of *that* kind equal one foot, and you'll find that you can't do it·.) The nature of this extension won't allow it: it *resists* your mind. So don't doubt its reality. The floor can't be penetrated by your foot—that is what your senses teach you in a confused and deceptive way. Intelligible extension is also impenetrable in its fashion—it makes you see this clearly by its evidentness and its own light.

You have the idea of space or extension—of a space, I say, that has no limits. This idea is necessary, eternal, unchangeable, common to all minds—to men, to angels, even to God. It can't be wiped out of your mind, any more than can the idea of existence or the infinite (I mean *existence* or *being* in the abstract, not any particular thing that exists). It is always present to the mind; you can't separate yourself from it or entirely lose sight of it. This vast idea ·of indeterminate space· is the source out of which are made not only •the idea of a circle and other ideas of purely *intelligible* shapes but also •the idea of every *sensible* shape that we see when we look at the created world—·for example, not only when we •investigate the geometrical properties of the circle, but also when we •see the full moon·. All this takes place when intelligible parts of this ideal, immaterial, intelligible extension are variously brought before our minds: sometimes when through our •attention to these shapes we *know* them; sometimes when because of •traces and movements in our brains we *imagine* or *sense* them. I can't explain all this to you in more detail just yet. Just hold onto these two points. **(1)** The idea of an infinite extension must necessarily have a great deal of reality, because you can't take all of it in: whatever movement you give your mind, you can't take your thought right through it. **(2)** It can't possibly be merely a state of your mind, because something infinite can't itself be a state of something finite. Say to yourself:

> My mind can't take in this vast idea. The idea goes infinitely beyond my mind; which shows clearly that it is not a mental state. States of things can't extend beyond the things of which they are states. . . . My mind can't measure this idea, because it is finite whereas the idea is infinite; and the finite, however great it may be and however often repeated, can never equal the infinite.

Aristes: How ingenious and quick you are! But slow down, please. I don't grant you that the mind perceives the infinite. I agree that the mind perceives an extension to which it sees no end, but it doesn't see an infinite extension. A finite mind can't see anything that is infinite.

9. Theodore: It is true that the mind doesn't see an infinite extension, Aristes, in the sense that its thought or its perception is equal to an infinite extension. If it were, it would take it in, and so would itself be infinite. For it would take an infinite thought to measure an infinite idea, encompass all at once everything the infinite includes. But

the mind does see all at once that its immediate object, intelligible extension, is infinite. And this is not because it doesn't see an end to it, as you think; for if that were so, the mind could *hope to find* an end or at least could *wonder whether* there is an end. Rather, the mind sees clearly *that there isn't* an end.

Imagine a man who drops down from the clouds and when he has landed on earth starts walking in a straight line—I mean, walking along one of the great circles into which geographers divide the earth. Let us suppose that he keeps on walking this line, and that nothing blocks his way. After several days of travel, not finding an end, can he conclude that the earth is infinite? No! If he is wise and cautious in his judgments, he will believe the earth to be very large, but he won't think it is infinite. And when his walking eventually brings him to his starting-point, he will realize that he has gone around the earth. But when the mind thinks about intelligible extension and wants to *measure* the idea of space, it sees clearly that it is infinite. The mind can't doubt that this idea is inexhaustible. If the mind takes enough of it to represent the space occupied by a hundred thousand worlds and again at every instant a hundred thousand more, the idea will never run out of space to meet the mind's demands; and the mind sees this and can't doubt it. Yet this isn't how the mind finds out that the idea is infinite. Rather, it knows that it *won't* ever use up all of the idea because it sees that the idea *is* infinite.

Of all the people who go in for reasoning, geometers are the most exact. Now, everyone agrees that there is no fraction which when multiplied by itself gives the product eight, although this number can be approached without limit by increasing the terms of the fractions ·or the lengths of the decimals: e.g. the series 2.828^2, 2.8284^2, 2.82841^2. . . approaches 8·. Everyone agrees that a hyperbola and its asymptotes, as well as various other such lines continued to infinity, will approach one another indefinitely without ever meeting. Do you think they discover these truths by trying, and form a judgment about what they don't see on the basis of some small part that they have seen? No, Aristes, that's the basis for judgment used by people who follow the testimony of imagination and the senses. True philosophers make judgments only about what they see. Yet they aren't afraid of affirming—without having put it to the test—that *no* part of the diagonal of a square, even one a million times smaller than the smallest particle of dust, can be used to measure exactly and without remainder the diagonal of the square and one of its sides. Thus the mind sees the infinite in the •small as well as in the •large—not by repeated •division or •multiplication of its finite ideas, which is no way to reach the infinite, but by the very infinity which it finds in its ideas and which belongs to them. That is how it learns, at a single blow, that there is no unity (·because everything is divisible·) and that there are no limits to infinite intelligible extension.

Aristes: I surrender, Theodore! Ideas have more reality than I thought; and their reality is unchangeable, necessary, eternal, common to all intellects, and doesn't consist in states of one's intellect, because the intellect is finite and so can't be in a state that is infinite. My •perception of intelligible extension is mine; it is a state of my mind; it is I who perceive this extension. But •the extension I perceive isn't a state of my mind. I realize that it is not *myself* that I see when I think of infinite spaces, of a circle or square or cube, when I look at this room, when I look up at the night sky. The *perception of* extension is mine. But as for the extension itself along with all the shapes I discover in it, I would like to know *how* all that can be independent of me.

·My question is about *how*, not *whether*·. My perception of extension can't exist without me, so it is a state of my mind. But the extension that I *see does* exist without me. *You* can contemplate it without my thinking of it, you and any other man.

10. Theodore: You needn't be afraid to add '. . . and so can God'. For all our clear ideas are, in their intelligible reality, *in God*. It is only *in him* that we see them. (Don't think that what I am saying now is new. It is the opinion of St Augustine.) If our ideas are eternal, unchangeable, necessary, you plainly see that they have to exist *in* something unchangeable. It is true, Aristes, that God sees intelligible extension—the model that is copied by the matter of which the world is formed and in which our bodies live—*in himself*, and (I repeat) it is only in him that *we* see it. Our minds live entirely in universal reason, in the intelligible substance that contains the ideas involved in all the truths we discover. ·We have two basic ways of discovering truths, the two ordinarily labelled •*a priori* and •*a posteriori*, or •discovery through reason and •empirical discovery. But I want to describe them in terms of the metaphysic that I am presenting to you. So·: we make discoveries through

> •general laws [see twelfth dialogue] governing the union of our minds with this reason I have been telling you about,

and we make other discoveries through

> •general laws governing the union of our souls with our bodies.

[The rest of this paragraph expands what Malebranche wrote, in a way that the apparatus of ·dots· can't handle.] I should say a little about the latter of these. When we discover things through our senses, changes in our souls are caused by traces imprinted in the brain by the action of objects, or the flow of animal spirits. I say 'caused by', but this is not strictly speaking *causation*, because a body can't strictly *cause* any change in a mind. Brain traces and animal spirits are what we might call 'natural causes' of changes in sensory state; or, more accurately, they are 'occasional causes', by which I mean that a bodily change is the *occasion* for *God* to cause a change in the soul—and what God exerts on the soul really is causation strictly so-called.

If I explain all this in detail now I'll get things out of order, but I do want to satisfy in part your desire to know *how* the mind can discover all sorts of shapes, and how it can see the sensible world in intelligible extension. Well, think of the three ways in which you can have (say) a circle in mind: you can •conceive it, •imagine it, or •sense or see it. When you •conceive a circle, what happens is that intelligible extension comes before your mind, indeterminate as to size but with all points equidistant from some given point and all in the same plane; that's how you conceive a circle in general. When you •imagine a circle, a determinate part of this extension—a part whose boundary is all equidistant from one point—affects your mind lightly. And, when you •sense or see a circle, a determinate part of this extension sensibly affects your soul, putting it into a certain state through the sensation of a certain colour. It is only through *colour* that •intelligible extension becomes •visible and represents some particular body, because it is only from colour-differences that we can see one object as different from another. All the •intelligible parts of •intelligible extension are of the same nature in their capacity as *ideas*, just as the parts of •material extension are of the same nature in their capacity as *substances*. But sensations of colour being essentially different, it is by them that we form judgments about the *variety* of bodies. What enables me to distinguish your hand from your coat, and to distinguish both from the air surrounding them, is the

fact that my sensations of them differ in light and colour. That is obvious. If I had the same colour-sensation from everything in your room, my sense of sight wouldn't show me a variety of objects. So you are right: intelligible extension variously brought before our minds can give us our ideas of •geometrical figures as well as ideas of •objects we admire in the universe and also of •everything our imagination presents us with. Just as we can use a chisel to form all sorts of figures from a block of marble, God can represent all material things to us by various presentations of intelligible extension to our minds. But *how* God does this, and *why* he does it in this way, are questions we can tackle later.

That's enough for our first discussion, Aristes. Try to get used to metaphysical ideas, and to rise above your senses. If I'm not mistaken, that will carry you into an intelligible world. Contemplate its beauties. Go over in your mind everything I've told you. Nourish yourself on the substance of truth and prepare yourself to push further into this unknown land that you have so far barely entered. Tomorrow I'll try to take you to the throne of ·God·, the sovereign majesty to whom belongs from all eternity this happy and unchanging place wherein our minds live.

Aristes: I am still utterly astonished and shaken. My body weighs down my mind, and I have trouble keeping a firm hold on the truths you have opened up to me. Yet you intend to lift me even higher! My head will spin, Theodore; and if I feel tomorrow as I do today, I won't have the confidence to follow you.

Theodore: Meditate on what I have told you today, Aristes, and tomorrow I promise you you'll be ready for anything. . . .

SECOND DIALOGUE

The existence of God. We can see all things in him, and nothing finite can represent him. So we have only to think of him to know that he exists.

Theodore: Well there, Aristes, what do you think of the intelligible world I took you to yesterday? Has your imagination recovered from its fright? Does your mind walk with a firm and sure step in that land of meditators, that region that can't be entered by those who listen only to their senses?

Aristes: What a beautiful spectacle that archetype of the universe is, Theodore!. . . . What a pleasant surprise it is when in *this* life the soul is carried into the land of truth and finds there an abundance of what it needs to nourish it. I am not yet quite accustomed to that. . . .entirely spiritual food—sometimes it seems to me quite hollow and light. But, when I taste it attentively, I find so much flavour and solidity in it that I can no longer bring myself to graze with the animals on the material earth!

Theodore: Oh, my dear Aristes, what are you saying to me? Are you speaking seriously?

Aristes: Most seriously. I really don't want to listen to my senses any longer. I keep wanting to enter the innermost part of myself and live on the good things I find there. My senses are for leading •my body to its usual pasture, and I allow •it to follow them there. But I'm no longer willing to follow my senses •myself! I want to follow reason and it alone, and—through my attention to it—to stride into the land of truth and find delicious food there—the only food that can nourish intellects.

Theodore: That's because you have temporarily forgotten that you have a body. But before long you will go back to thinking of it, or rather to thinking in terms of it. The body that you are now ignoring will soon oblige *you* to drive it to pasture and to busy *yourself* with its needs. The mind is not at present so easily disengaged from matter. But while I've got you as a pure ·unembodied· spirit, please tell me what you have discovered in the land of ideas. Concerning reason—about which we on this material earth say so much and know so little—do you now know what it *is*? Yesterday I promised to raise you above all creatures and take you to the very presence of the creator. Wouldn't you have liked to fly up there by yourself, without thinking of Theodore?

1. Aristes: I confess I did think that I could—with all due respect to you—go by myself along the path you had shown me. I followed it, and it seems to me that I gained clear knowledge of what you told me yesterday, namely that universal reason is an unchangeable nature and exists in God alone. I'll tell you briefly what steps I took, and you can tell me whether I went astray.

After you left me, I remained for some time unsteady and taken aback. But, urged on by an inner ardour, I seemed to be saying to myself somehow (I don't know how!), *Since reason is common to me and to Theodore, why can't I consult it and follow it without him?* I did consult it, and followed it too. And if I'm not mistaken it took me ·to God·, to the one who *possesses* this reason as his own, by the necessity of his nature. Indeed, reason seems to lead very naturally to God. And here, quite simply and straightforwardly, is the line of reasoning that I followed.

Infinite intelligible extension is not a state of my mind. It is unchangeable, eternal, and necessary. I can't doubt that it is real and infinite. But anything unchangeable, eternal, necessary, and above all *infinite* •isn't a created thing and •can't belong to a created thing. So it belongs to God and can't exist except in him. Hence, there is a God and there is reason. There's a God in whom there exists the •archetype which I contemplate of the created world I live in [that is, the •model or •pattern from which the created world is somehow copied]. There's a God in whom there exists the reason that enlightens me by purely intelligible ideas that it lavishly supplies to my mind and to the minds of all men. I am certain that all men are united to this same reason that I am united to; for I am certain that *they* do or can see what *I* see when I enter into myself and discover the truths or necessary relations contained in the intelligible substance of universal reason that lives in me—or, rather, in which all intellects live.

2. Theodore: You haven't gone astray, my dear Aristes. You have followed reason, and it has led you to God, who generates reason from his own substance and possesses it eternally. But don't imagine that it in leading you to God it revealed to you *his nature*. When you contemplate intelligible extension, you see simply the archetype of our material world and of an infinity of other possible worlds. As a matter of fact, you do also see the divine substance, for it is the only thing that is visible—the only thing that can light up the mind. But you don't see it •in itself; you don't see it •in its

own nature. You see it only •in its relation to created natural things—the relation consisting in their *participating in* the divine substance, i.e. of its *representing* them. So strictly speaking what you see is not God, but rather the matter that he can produce. Certainly, by way of infinite intelligible extension you see **that** God is: because nothing finite can contain an infinite reality, only he can contain what you see. But you don't see **what** God is. There are no limits to God's perfections, whereas what you see when you think of immense spaces doesn't have an infinity of perfections. I say 'what you see' and not 'the substance that represents to you what you see'; for that substance—which you don't see in itself—*does* have infinite perfections.

To be sure, the substance that contains intelligible extension is all-powerful, is infinitely wise, and contains an infinity of perfections and realities—for example an infinity of intelligible numbers. But none of this has anything to do with intelligible extension. There is no wisdom, no power, no number *one*, in the extension that you contemplate. You know that any two numbers are commensurable because they have *one* as a common base. If the parts of extension as it is divided and subdivided by the mind could be reduced to *units*—·smallest possible segments of a line·—then they would be commensurable with one another in terms of that unit. But you know that that's certainly false—·there is no unit of extension·. Thus, the divine substance contains an infinity of different intelligible perfections, and by them God enlightens us, showing himself to us not •as he is in particular but only •in general terms, and not as he is •in himself but only •in relation to what he can produce. (God has this infinite variety despite being, in himself, *simple*—·without parts·—this simplicity being more than we could achieve.) Still, although we can't know God as he is in himself, try to follow me and I'll take you as near to him as possible.

3. [In this next paragraph, the notion of *being a thing of a specific kind* is connected with *not being infinite in every way*. The underlying assumption is that whatever makes a thing be of a certain kind must involve some constraint, some sort of limit, some non-infinity, in its nature.] Infinite intelligible extension is the archetype only of an infinity of possible worlds like ours. All I see by means of it are particular things, material things. When I think of this extension, I see the divine substance only to the extent that •it represents bodies and •bodies can participate in it. But there are two points I want to make about what the situation is

> when I think of *being* ·in the abstract· and not of certain particular beings, and when I think of *the infinite* and not of a certain particular infinite ·such as the infinity of the series of numbers or the infinite extent of space·.

(i) The first point is that I don't see any such vast reality in the states of my mind. For if I can't find in my mental states enough reality to represent •the infinity of space, there is all the more reason that I shan't find in them enough reality to represent •every sort of infinity. Thus, it is only

> God, the infinite,
> the unlimited being
> the infinite that is infinitely infinite,

that can contain the infinitely infinite reality I see when I think of *being* ·in general, or of *infinity* in general·, rather than merely of certain particular beings or certain particular infinites. [The French phrase here translated as ' the unlimited being' could as well have been translated as 'unlimited being'. The former seems to be concrete—*the thing or being that isn't limited in any way*, i.e. God; whereas the latter seems to be abstract—*what it is just to BE without being limited in any way*. Because the French for these is exactly the same, it is not always clear which translation is better, but it doesn't matter much, because Malebranche holds that thinking about unlimited

being is exactly the same as thinking about *the* unlimited being. The only unlimited being is God, and the whole truth about God is contained in his being unlimited.—All of this applies equally to the phrase translated as '(the) infinite being'. See eighth dialogue, section 7.]

4. (ii) The second point is this: It is certain that the idea of

being,
reality,
unbounded perfection,
being-infinite-in-every-way,

is not the divine substance in its role as representing, or as being participated in by, *one particular* created thing. For every creature is necessarily a thing of a certain sort: That God should make

a being in general, or
a being that is infinite in every way,

is a contradiction; because such a being would be God himself, i.e. identical with its own cause. [Theodore gives an example involving the Christian Trinity, and then moves to one that is, intellectually speaking, 'a better fit for our minds'.] It is evident that the idea of *a circle in general* is not intelligible extension

in its role as representing such and such a circle, or
as able to be participated in by such and such a circle.

The idea of a circle in general—or the essence of *circle*—represents or fits infinitely many circles. It contains the idea of the infinite. To think of a circle in general is to perceive an infinite number of circles as a single circle.

I don't know if I am getting across the thing I want you to understand. Here it is in a few words. The idea of being without restriction, of the infinite, of generality, is not the idea of creatures or the essence that fits them; it is the idea that represents God or the essence that fits him. All particular existing things participate in being, but no particular thing is identical with it. Being contains all things; but the totality of things that have been or could be created can't fill the vast extent of being. [Throughout this discussion, it should be borne in mind that the French *l'être* can equally well mean the abstract 'being' (or 'existence') or the concrete 'the being' (or 'the existing thing'). Thus, to think about *l'être infini* can be either to •think about what it is to exist in an infinite way, without limits of any kind, or •to think about the being that exists in that way, i.e. to think about God.]

Aristes: I think I see your meaning. You define God as he defined himself in speaking to Moses, 'I am what I am' (*Exodus* 3:14). Intelligible extension is the idea or archetype of bodies. But ·our idea of· being without restriction, or in a word 'Being', is the idea of God: it is what represents him to our minds as we see him in this life.

5. Theodore: Very good. But note especially that God or the infinite isn't visible through an idea that represents it. There is no archetype or idea *of* the infinite, which is its own idea. This idea can be known, but it can't be *made*. What can be made are only created things—things of this or that *kind*—which are visible through ideas that represent them even before they are made. We could see a circle, a house, a sun, even if there were no such thing. All •finite things can be seen in •the infinite, which contains intelligible ideas of them. But •the infinite can be seen only in •itself, ·not by way of an idea that represents it·, for nothing finite can represent the infinite. If we think of God, he must exist; ·I'll explain why in a moment·. We *can* think about a being of this or that specific *sort* without its actually existing. ·Because it is finite·, we can think about it through an idea that represents it, and with the help of that idea we can see •its essence without •its existence, see •the idea of it without •*it*. But we can't see the essence of the infinite without its existence, the

idea of being without being. For being is not represented by any idea. There is no archetype that contains all its intelligible reality. It is its own archetype, and it contains in itself the archetype of all beings.

So you can see that the proposition 'There is a God' is all by itself the clearest of all propositions affirming the existence of something, and that it is as certain, even, as 'I think, so I am'. You can also see what God is, because •God and •being and •the infinite are one and the same thing.

6. But, once again, don't get this wrong. You see what God is only confusedly, as though seeing from a distance. Though you do see the infinite (or unrestricted being), you see it only in a very imperfect way, so you don't see God *as* he is. You don't see the infinite as a simple being. You see the multiplicity of created things in the infinity of the uncreated being, but you don't clearly see its unity, ·i.e. you don't see clearly that it is an absolutely *single* thing·. That's because you see it not in its self-contained reality but rather in its relation to possible creatures. . . . You see it as

> universal reason, which brings to intellects whatever light as they need for •leading their lives and •discovering such perfections of God as can be grasped by limited beings.

That is a view of its *relations*. But you don't discover the ·non-relational· property that is essential to the infinite, namely

> its being •*all things* and at the same time being •*one*; its being a •composite (so to speak) of an infinity of different perfections while being so •simple (·i.e. so *non*-composite·) that in it each perfection contains all the others without there being any real distinction.

God doesn't impart his substance to creatures. He imparts only his perfections, not •as they are in his substance but •as his substance represents them; and he imparts *only as much of them as his limited creatures can have*. Here's an example ·to illustrate that last point·. Intelligible extension represents bodies: it is their archetype or their idea. But, though this intelligible extension doesn't occupy any place, bodies are spatially extended; that's the only way they can exist, •because of their essential limitedness as creatures and •because no finite substance can have the property of being

> *one* and at the same time *all things*,
> *perfectly simple* yet *having every sort of perfection*.

This property is incomprehensible to the human mind, ·yet we know that intelligible extension has it·. Thus, intelligible extension represents infinite spaces, but doesn't *fill* any of them; and though it does in a sense *fill* all minds and discloses itself to them, this doesn't imply that our minds are spacious! (They would have to be infinitely spacious if they were to see infinite spaces by the kind of contact through which they see finite stretched-out spaces.) The divine substance is everywhere, without itself being spatially extended. It has no borders. It isn't contained in the universe. But what we see when we think of spaces is not this substance as spread out everywhere. If *that* were what we had to do in order to think about infinite spaces, we couldn't do it, because our minds are finite. The intelligible extension that we see in the divine substance containing it is just that substance itself in its role as representing material things and thus being participated in by them. That's all I can tell you. But note this concerning •the unrestricted being, •that which is infinite in every way we are aware of: there is more to it than ·merely· the divine substance considered as representing all possible beings. The totality of these beings can't equal the intelligible reality of the infinite. (We can't have specific ideas of all these beings, but we can be sure of that much about them.) In a sense, then, it *is*

God's substance itself that we see. But in this life we see it in such a confused way and at such a distance that we see *that* it is rather than *what* it is; we see that it is the source and model for all beings, rather than seeing its own nature or seeing its perfections in themselves.

Aristes: Isn't there a contradiction in what you are telling me? If nothing finite can have enough reality to be able represent the infinite (and it seems to me that that's clearly right), mustn't we inevitably see God's substance •in itself ·rather than seeing any of its •properties or attributes, all of which are infinite·?

7. Theodore: I don't deny that we see God's substance in itself. We *do* see it 'in itself' in the sense that

> our seeing of it doesn't involve something finite that represents it.

But we *don't* see it 'in itself' in the sense that

> we get right through to its simplicity, and discover its ·many· perfections.

Since nothing finite can represent infinite reality (we agree on that), it is clear that if you see the infinite you see it only in itself ·and not through any finite representation of it·. And it's certain that you *do* see it. If you *didn't*, then in asking me whether God or an infinite being exists you would be raising a ridiculous question involving a proposition the terms of which you wouldn't understand. It is as if you were to ask me whether a 'Blictri' exists, that is, a something you know not what. (I choose 'Blictri' as a word that doesn't awaken any ideas.)

Surely all men have the idea of God, i.e. think of the infinite, when they ask whether there is such a being. But they believe they can think of it without its existing, because ·they believe that in asking the question they are involved merely with an idea of theirs that *represents* God or the infinite. In taking that view· they overlook the fact that ·they *can't* have such an idea, because· nothing finite can *represent* the infinite. Created things can be seen without their existing, because we see them not in themselves but in the ideas that represent them; so men can think of many things that don't exist; but they ·wrongly extend this and· imagine that it is the same with the infinite and that they can think of *it* without its existing. That is how it comes about that men are engaged in a search for something that they encounter at every moment but fail to recognize! They would recognize it soon enough if they entered into themselves and reflected on their ideas.

Aristes: You convince me, Theodore, but I still have a lingering doubt. It seems to me that the idea I have of *being in general*, or of *the infinite*, is something that I *made*. It seems to me that the mind can make general ideas for itself out of a number of particular ideas. When we have seen a number of trees, an apple tree, a pear tree, a plum tree, etc., we get from them a general idea of *tree*. In the same way, when we have seen a number of existing things we form from them the general idea of *existence*. So this general idea of existence may be only a confused assemblage of all the others. That's what I have been taught; it is how I have always understood the matter.

8. Theodore: Your mind is a wonderful workman, Aristes! It can derive •the infinite from •the finite, the idea of •being without restriction from ideas of certain •particular beings. Perhaps it finds in its own resources enough reality to supply finite ideas with what they need in order to become infinite! I don't know whether *that* is what you 'have been taught', but I think I know you have never properly grasped the matter.

Aristes: If our ideas were infinite, they wouldn't be of our making and wouldn't be mere states of our minds—no

argument about that. But perhaps they are finite, although we can perceive the infinite by means of them. Or it may be that •the infinite we ·seem to· see is not basically infinite ·after all·. It may be, as I have just said, only a confused assemblage of a number of finite things. The general idea of existence may be only a confused accumulation of ideas of particular existents. I have trouble ridding my mind of this thought.

9. Theodore: Yes, Aristes, our ideas are finite, if by 'our ideas' you mean our perceptions or the states of our minds. But, if by 'idea of the infinite' you mean what the mind sees—what is the immediate object of the mind—when it thinks of the infinite, then certainly that *is* infinite. . . . The impression that the infinite makes on the mind is finite. When we •confusedly think of a large object, or indeed of the infinite, we have less perception in our mind, are less imprinted with ideas, in short we have less *thought*, than when we •clearly and distinctly know a small object. But though the mind is almost always more affected, more permeated, more changed by a finite idea than by an infinite one, nonetheless the •infinite idea (a being with no restrictions) contains more reality than does the •finite idea (beings of such and such kinds).

You couldn't get it out of your mind that general ideas are only a confused assemblage of particular ones, or at least that you can make them out of such an assemblage. Let us see what is true and what is false in this stubborn thought of yours. Here is what has been happening, Aristes. You think of a circle one foot in diameter, then of a two-foot circle, then three, four, and so on, and then you stop specifying the length of the diameter and think of a *circle* in general. That leads you to say: 'The idea of a circle in general is only the confused assemblage of the circles I have thought of.' But that conclusion is certainly false; for the idea of a circle in general represents an •infinity of circles and fits all of them, while you have thought of only •a finite number of circles.

Well, then (·you will want to conclude·), you have found the secret of making the idea of a circle in general out of the five or six you have seen. This is true in one sense and false in another. It is false if taken to mean that

> there is enough reality in the idea of five or six circles to derive the idea of a circle in general.

But it may be true if taken to mean that

> after recognizing that the size of circles does not change their properties, you stopped thinking of them one by one, each with its different size, and instead thought about them in a general way, with size left out.

In this way you have (so to speak) formed the idea of •*circle in general* by spreading the idea of •generality over the confused ideas of the •circles you have imagined! But I maintain that you couldn't have formed a general idea if you hadn't found in the idea of the infinite enough reality to give generality to your ideas. You couldn't think of an indeterminate diameter if you didn't see the infinite in extension, thus becoming able to increase or lessen the diameter infinitely. The idea of the infinite is inseparable from your mind. I maintain that if it weren't joined quite naturally to the particular ideas you perceive, you could never think of those abstract *kinds* of things. You could think of this or that circle but never of *the circle* [or: of *circularity*]. . . .That is because no finite and determinate idea can ever represent anything infinite and indeterminate. Yet the mind rashly combines its finite ideas with the idea of generality that it finds in the infinite. Just as it spreads the idea of •indivisible unity over the idea of a certain extension which is in fact •infinitely divisible, the mind also spreads the general idea of •perfect equality over •particular ideas. That throws it into an infinity of errors. For

all the falsity in our ideas comes from our confounding them with one another, and also mixing them up with states of our minds. But that's something we will talk about another time.

Aristes: That is all very well, Theodore, but aren't you taking •our ideas to be something different from •our perceptions? It seems to me that the idea of a circle in general is only a confused perception of a number of circles of different sizes, that is, an accumulation of different states of my mind: they are almost effaced, but each of them is the idea or perception of one particular circle.

10. Theodore: I certainly do see plenty of difference between our •perceptions and •our ideas, between •we who perceive and •what we perceive. It's because I know that something finite can't find in itself what is needed to represent the infinite. It is because I know, Aristes, that I contain no intelligible reality in myself and, far from finding ideas of everything in my substance, I don't even find there the idea of my own being. I am entirely unintelligible to myself, and I shall never see what I am unless God chooses to reveal to me the idea or archetype of the minds that universal reason contains. But that's a topic for another time.

Surely, Aristes, if your ideas were only states of your mind, the confused assemblage of thousands of ideas would never be anything but a confused composite with nothing general about it. Take twenty different colours and mix them together to create in yourself ·the idea of· a *colour in general*; produce several different sensations in yourself at the same time, so as to get ·an idea of· *sensation in general*. You'll soon see that you can't do this. By mixing different colours. . . .you will always get some particular colour. By ·giving yourself many different sensations all at once, and thus creating· a great number of different movements of the brain fibres and animal spirits, you will make yourself •dizzy; but that is just •one particular sensation. The point is that *any* state of a particular thing such as our mind must itself be particular. It can never achieve the generality that ideas have. It is true you can •think of pain in general, but you could never be in a pain-state that was anything but a particular pain. If you can think of pain in general, that's because you can attach generality to *anything*. But, I repeat, you can't draw this idea of generality from your own resources. It has too much reality; it must be supplied to you from the abundant store of the infinite.

Aristes: I have nothing to say to you in reply. Everything you are telling me seems obviously right. But I am surprised that these general ideas, which have infinitely more reality than particular ones do, make *less* of an impression on me than particular ideas do and appear to me to have much *less* solidity.

11. Theodore: That is because they make themselves less felt or, rather, that they don't make themselves *felt* at all. Don't judge the reality of ideas, Aristes, as children judge the reality of bodies. Children think that all the spaces between heaven and earth are nothing real since they don't make themselves *felt*. There's as much matter in a cubic foot of air as in a cubic foot of lead, but most people are unaware of this because lead is harder, heavier, in short, more *feel*able than air. Don't follow their lead. Don't estimate the reality of an idea by

> the •sensation you have of it, which confusedly indicates to you what it •does,

but by

> the •intelligible light that reveals to you what it •is.

Otherwise you will think that sensible ideas that make an impression on you, such as the idea you have of the floor

under your feet, have more reality than purely intelligible ideas do, when in fact there is fundamentally no difference between them.

Aristes: 'No difference', Theodore? No difference between the idea of the extension I •think of and the idea of the extension that I •see—the one that I press with my foot and that resists me?

Theodore: No, Aristes, there are *not* two kinds of extension, or two kinds of ideas representing them. If the extension that you think were to affect you, or to give your soul by some state of sensation, it would appear to you as *sensible*, though really it is *intelligible*. It would appear to you to be hard, cold, coloured, and perhaps painful, for you might attribute to it all your own sensations. I repeat: we shouldn't judge things by our sensations of them. We shouldn't think that ice has more reality than water because it is harder to the touch.

If you thought that •fire has more force or efficacy than •earth, ·you would be wrong but· your error would have some foundation. For there is some reason to judge how great a power is by the size of its effects. But to believe that

> •the idea of extension that gives you a sensation

is of a different sort from, having more reality than,

> •the idea involved when you *think* of extension without having any sensible impression

is to mistake the absolute for the relative, judging what things are in themselves by the relation they have to you. That's the way to give more reality to the point of a thorn than to all the rest of the universe—more even than to infinite existence! But when you get used to distinguishing your sensations from your ideas, you'll come to recognize that the one and only idea of extension can be known, imagined, or *felt*, depending on how the divine substance that contains it brings it before our minds. . . . In due course you'll understand more clearly what I am hinting at here.

Aristes: Everything you've just said, Theodore, is terribly abstract, and I'm having trouble keeping it before me. My mind is working queerly—a little rest, please! I need to think at leisure of all these grand and sublime truths. I'll try to become familiar with them through the strenuous efforts of entirely pure thought about them. But just now I am not capable of that. I must rest in order to regain my strength.

Theodore: I knew you wouldn't be pure spirit for long, Aristes! Go, lead your body to pasture. Divert your imagination with the various objects that can revive it and give it pleasure. But try all the same to retain some taste for the truth; and, as soon as you feel able to meditate on it and be nourished by it, drop everything else and pursue truth. As far as you can, even forget what you are. You have to think of your body's needs, but it is a great disorder to be preoccupied with its pleasures.

THIRD DIALOGUE

The difference between our sensations and our ideas. We must judge things only by the ideas that represent them, and not at all by the sensations we get in their presence.

Theodore: Hello, Aristes! What a dreamer you are! What are you so deep in thought about?

Aristes: Ah, Theodore, you surprised me! I'm returning from that other world that you took me to in these last days. Now I go there all alone, with no fear of the phantoms that block the way in. But when I am there I find so many dark places that I become afraid of going astray and getting lost.

1. Theodore: For someone to be able to leave his body when he wants to, and to bring his mind up to the land of intellects—that is a great thing, Aristes, but it isn't enough! One also needs some knowledge of the map of the land, showing which places poor mortals can't get to, and which they can enter freely without fear of illusions. It seems to me that most travellers in these dangerous regions have been led astray, drawn by certain seductive spectres into crevasses from which it is virtually impossible to return, because they haven't taken proper heed of just one thing that I am going to get *you* to pay heed to. Listen to me very carefully. And never forget what I tell you today. Never mistake •*your own* sensations for •*our* ideas, the •states of *your* soul for the •ideas that enlighten *all minds*. This is the chief recipe for avoiding error. Whenever you contemplate •ideas you discover something true; but you'll never be enlightened by •your own states, however closely you attend to them. You can't quite understand what I am saying to you—I'll have to explain myself some more.

2. You know, Aristes, •that God, in his role as universal reason, contains in his substance the primordial ideas of all created things and all possible things. ['God' here translates *le Verbe divin* = 'the divine Word', which Malebranche sometimes uses to name God, on the strength of various passages in the New Testament—especially 'the word was with God, and the word was God'. None of his doctrines depends on this; and avoiding it helps to create a salutary difference of *tone* between this version and Malebranche's original.] You know •that all intellects are united with sovereign reason, and discover in it such of these ideas as God chooses to reveal to them. (This occurs as a consequence of general laws that he has set up to make us rational and to enable us to be in a society with one another and with him. Some day I shall elaborate on this whole mystery.) You don't doubt •that intelligible extension, for instance, which is the primordial idea or archetype of *bodies* [i.e. the model from which bodies are copied], is contained in universal reason, which enlightens every mind including •the one with which it is consubstantial. [He means •'God's mind', which is 'consubstantial' with universal reason in the sense that universal reason is the same substance as—is one and the same thing as—God's mind.] But perhaps you haven't reflected sufficiently on the difference between the intelligible ideas contained in universal reason and our own sensations or states of our souls; perhaps you think there is no point in marking the difference exactly.

3. What a difference there is, my dear Aristes, between the light of our ideas and the darkness of our sensations, between knowing and sensing! And what a need there is to get used to distinguishing them readily!. . . . Man is not his own light. His substance, far from enlightening him, is itself unintelligible to him. He knows *nothing* except by the

light of universal reason, which enlightens all minds by the intelligible ideas that it reveals to them. . . .

4. Created reason, our soul, the human mind, the purest and most sublime intellects can indeed see the light; but they can't produce it or pull it up from their own depths or generate it from their own substance. In

eternal, unchangeable, necessary wisdom

they can discover

eternal, unchangeable, necessary truths;

but in

themselves

all they find are

sensations

—often very lively ones, but they are always obscure and confused. . . . In short, they can't discover the truth by contemplating themselves. They can't be nourished by their own substance. They can find the life of the intellect only in the universal reason that enlivens all minds and enlightens and guides all men. Reason is the internal solace of those who follow it, reason calls back those who leave it, and reason by its terrible reproaches and threats fills those who are determined to abandon it with confusion, anxiety, and despair.

Aristes: My reflections on what you have told me these last days, Theodore, have persuaded me. Only God enlightens us by the intelligible ideas he contains. There aren't two or more wisdoms, two or more universal reasons. Truth is unchangeable, necessary, eternal; the same in time and in eternity; the same for foreigners and for us; the same in heaven and in hell. . . . If men are not equally enlightened ·by it·, that is because they aren't equally attentive, and they mingle—some more, some less—their •states of mind with •ideas, mingle •particular promptings of their self-esteem with the •general responses of internal truth. Twice two makes four in all nations. We all hear the voice of truth telling us not to do to others what we wouldn't want them to do to us. And those who disobey this voice feel the internal reproaches that threaten and punish them for their disobedience, if they enter into themselves and listen to reason. I am now quite convinced of these principles. But I don't yet properly understand how •knowing differs from •sensing or •feeling—a difference that you judge to be necessary for avoiding error. Please help me to see it.

5. Theodore: If you really had meditated on the principles that you say you are convinced of, you would see it for yourself. . . . Answer me: Do you think that God •feels the pain that we suffer?

Aristes: Certainly not, for the feeling of pain makes one miserable.

Theodore: Very well. But do you believe he •knows it?

Aristes: Yes, I believe he does. For he knows everything that happens to his creatures. God's knowledge has no limits, and he can know my pain without being either unhappy or imperfect. On the contrary. . .

Theodore: Oho, Aristes! God •knows pain, pleasure, heat, and the rest, but doesn't •feel these things! He knows pain because he knows what the state of the soul is in which pain consists. He knows it because he alone causes it in us (I'll prove that to you later on), and ·of course· he knows what he does. In short: he knows it because his knowledge has no limits; he doesn't feel it, because that would make him unhappy. Thus, to know pain is not to feel it.

Aristes: That is true. But isn't feeling pain knowing it?

6. Theodore: Certainly not, since God in no way feels it yet he knows it perfectly. But let's not get held up by verbal

difficulties. If you insist that feeling pain is knowing it, at least agree that it isn't knowing it clearly, isn't knowing it by light and evidentness, in short isn't knowing its nature—and so strictly speaking it isn't knowing it! For you to feel pain is for you to be miserable without knowing what you are or what state of yourself is making you miserable. But to •know something is to •have a clear idea of its nature and to •discover certain of its relations by light and evidentness. I know the parts of extension clearly because I can plainly see their relations. I see clearly that similar triangles have proportional sides, that there is no plane triangle whose three angles are not equal to two right angles. I see these truths or relations clearly in the idea or archetype of extension. For that idea is so luminous that people can turn themselves into geometers or good natural scientists just by studying it, and it is so rich in truths that they won't ever be exhausted by all the minds there are.

7. It is not the same with my being [here = 'my nature']. I have no idea of it; I don't see its archetype. I can't discover any relations among the states of my mind. I can't by turning in to myself recognize any of my faculties or my capacities. My internal *sense* of myself teaches me

> that I am, that I think, that I will, that I sense, that I suffer,

and so on, but it doesn't reveal to me

> *what* I am, what the nature is of my thought, my will, my sensations, my passions, my pain, or the relations these things have to one another.

This is because—to repeat myself—I have no idea of my soul and don't see its archetype in universal reason, so I can't discover by contemplation what the soul is, or what states it can be in, or of how its states relate to one another—these relations being something that I sense keenly without knowing them and that God knows clearly without sensing them. All this follows, my dear Aristes, because. . . .for many reasons God hasn't seen fit to reveal to me the idea or archetype that represents the nature of spiritual beings. If my substance were intelligible of itself or in itself, if it were luminous, if it could enlighten me, I would •certainly be able by contemplating myself to see that I could have certain particular sensations which I have never in fact experienced and which I may never have any knowledge of. I would •know what the sweetness of harmony is without attending any concerts; without ever tasting a certain fruit I would •be able not to *sense* but to *know clearly* the nature of the sensation it would arouse in me. But we can know the nature of things only in the reason that contains them in an intelligible manner; so it is only in reason that I can discover what I am and what states I can be in, for in myself I can only *sense* them. There is even the more reason to think that it is only in reason that I can discover the principles of the sciences and all the truths that are capable of enlightening the mind.

Aristes: [He expresses his agreement with all that, and suggests that 'we move on a little'.]

8. Theodore: Very well, Aristes. You are now ready to make thousands upon thousands of discoveries in the land of truth. Distinguish ideas from your sensations, but do it properly! I repeat: do it properly, and you won't be drawn into error by those enticing phantoms that I told you about. Always rise above yourself. Your states are total darkness, remember. Go higher to reason, and you will see light. Silence your senses, your imagination, and your passions, and you'll hear the pure voice of internal truth, the clear and clearly true responses of our common master. Don't confuse the clear •evidentness that comes from comparing ideas with the •liveliness of the sensations that come to you and stir

you up. The livelier our sensations are, the more darkness they spread! Our phantoms appear to have more body and reality when they are very fearsome or very attractive; but those are just the ones that are the most dangerous and most apt to seduce us. Get rid of them, or distrust them. In brief, flee from whatever •affects you and latch on to whatever •enlightens you. Reason must be followed despite •the enticements, the threats, the insults of the bodies that are united to, despite the action ·on our bodies· of the objects that surround us. Have you got all this clear in your mind? Are you quite convinced of it by the reasons I have given you and by your own reflections?

Aristes: That's an awfully *forceful* speech to make in a discussion of metaphysics, Theodore! You seem to be arousing sensations in me rather than giving birth to clear ideas. (I'm putting this in *your* language.) Honestly, I *don't* really understand what you are telling me. I see it, and a moment later I don't—because all I ever get is a glimpse. It seems to me that you are right, but I don't understand you very well.

9. Theodore: Ah, my dear Aristes, your reply is more proof of what we were just saying. And it's not a bad thing that you should think about it ·some more·. I tell you what I see, and you don't see it: this shows that men don't instruct men. I am not your master or your teacher; I am a mere guide—an energetic one, perhaps, but not a very accurate or intelligible one. I speak to your ears, apparently producing nothing but noise in them. Our one and only master doesn't yet speak clearly enough to your mind—or, rather, reason always *speaks* to it quite clearly but you don't *attend* well enough to hear properly what it is telling you. But judging by the things you have been saying to me, and what I have been telling you, I thought that you *did* understand well enough my principle and its consequences. But I see that it's not enough to give you general advice relying on abstract metaphysical ideas. I must also give you some particular proofs of the necessity of these views.

I urged you to get the knack of spotting the difference between •knowing and •feeling, between our clear •ideas and our invariably obscure and confused •sensations. And I maintain that this—·just this *distinction*·—suffices for the discovery of an infinity of truths. I base this on the fact that reason alone enlightens us, that we aren't a light unto ourselves or an intellect to anyone else. You will clearly see whether this basis is solid when you stop listening to me and in private attentively consult internal truth. Still, I'll offer something to help you with all this, starting with a question. I often see you playing musical instruments in a knowledgeable and confident manner—you know music, don't you?

Aristes: I know enough to charm away my bad temper and to banish my melancholy.

10. Theodore: Good. Then tell me about the various sounds that you combine so rightly and pleasingly. What is an octave, a fifth, a fourth? Why is it that when two strings are tuned to the same note we can't touch one without making the other move too? You have a very fine and delicate ear: answer my questions by consulting *that*.

Aristes: I think you are making fun of me. What we have to consult ·to answer questions like that· is not the senses but reason.

Theodore: That is true. We should consult the senses only about facts. Their power is very limited, but reason covers everything. Consult reason, then, and take care not to muddle its replies with the testimony of your senses. Well, then, what does it reply?

Aristes: You're hurrying me too much! Still, ·I'll give you an answer·: it seems to me that *sound* is a quality spread out in the air, a quality that can affect only the sense of hearing. . . .

Theodore: Do you call *that* consulting reason?

Aristes: What do you want me to say to you? Come, here is an octave—*Do–do*. Here is a fifth—*Do–so*. Here is a fourth—*Do–fa*.

Theodore: You sing well, but how badly you reason! I think you are just enjoying yourself.

Aristes: To be sure, Theodore! But as for your other question, I reply that it is *sympathy* that makes strings of the same pitch move one another. Haven't I got that right?

Theodore: Let's be serious, Aristes. If you want me to enjoy *my*self, try to instruct me.

Aristes: I shall do nothing of the sort, if you please. You play your role, and I'll play mine. Mine is to listen.

Theodore [sarcastically]**:** How nice and pleasing your manners are! Come, then, let me have the monochord [a kind of one-stringed violin, used for teaching acoustics] and attend to what I'm going to do and say. In pulling on this string, I move it from the state in which its tension has been holding it; and when I let go—see! no need for me to prove it!—the string moves up and down for some time, making a great number of ·visible· vibrations. (So there must also be many other commotions that are too small for our senses to detect; because a string can't vibrate, becoming alternately straight and curved—and thus shorter and longer—unless its ·tiny· *parts* lengthen and shorten very quickly.) Now I ask you, can't a body in motion move something that it comes up against? ·Of course it can, and· therefore this string can move the air that surrounds it (and even the subtle matter filling its pores), and this in turn moves something else, and so on to your ear and mine.

Aristes: That is true. But what I hear is a *sound*, a sound spread out in the air, a quality that is quite different from vibrations of a string or commotions of moving air.

Theodore: Slow down, Aristes! Don't consult your senses, and don't base your judgments on their testimony. Sound is indeed entirely different from moving air; but just for this reason you have no ground for saying that sound is spread out in the air. For note this: all I can do by touching this string is to make it move, and in moving all *it* can do is to disturb the air that surrounds it.

Aristes: 'All it can do is to disturb the air that surrounds it'! But don't you hear it produce a sound in the air?

Theodore: Clearly I hear what you hear. But when I want to learn some truth I don't consult my ears—and you *are* consulting yours, despite all your good resolutions, Enter into yourself, then, and consult the clear ideas that reason has to offer. Can you conceive that when air is agitated it can *contain* the sound that you hear, and that a ·vibrating· string can *produce* this sound? Once again, don't ask your ears! To be on the safe side, pretend you are deaf. Now attend closely to the clear idea of *extension*—the archetype of bodies, representing their nature and properties. Isn't it obvious that the only possible properties of extension are spatial relations? Think seriously about this.

Aristes: It *is* obvious. The properties of extension can consist only in different ways of being extended; and these are just spatial relations.

Theodore: So the properties of extension are simply
shapes—spatial relations that are stable and fixed—
and

> motions—spatial relations that are successive and changing.

That being so, Aristes, the sound that you admit is something other than motion is *not* 'spread out in the air', and a string can't produce it in the air. Rather, it is simply a sensation or a state of the soul.

Aristes: I see I must either give in or deny the principle that the idea of extension represents the ·whole· nature of bodies. Perhaps it represents only one of the properties of bodies. After all, who told you that bodies are nothing but extension? Perhaps the essence of matter consists in something else, which *can* contain sounds and even produce them. Give me proof that this is wrong.

Theodore: ·First·, *you* prove to *me* that this 'something else' that you propose as the essence of matter won't be capable of thinking, willing, or reasoning. I hereby claim that the strings of your lute think as much as you do, or at least that they ·audibly· *complain* when you disturb their rest! Prove to me that *that* is wrong, and I will convince you that the strings spread no sound.

Aristes: It is true that, if the nature of body consists in something other than extension, I have no idea of that 'something else', so I can't prove to you that it doesn't think. But please prove to me that there is nothing to matter except extension, so that matter cannot think. It seems to me that we *need* this proof if we are to silence freethinkers [= roughly 'atheists'], who maintain that the soul is mortal because the body is mortal—their assumption being that all our thoughts are only states of that unknown thing we call body, and any state can go out of existence.

11. Theodore: I have already answered that; but it is so important that although this is not the place for it I gladly ·go into it again. I· call your attention to the fact that the answer to this question depends, as do all other truths, on the great principle that

> our enlightenment comes from the ideas that universal reason contains.

Add the thesis that

> God's works have been formed on the basis of those ideas,

and the result is that we should look to those ideas in order to discover the nature and properties of created things. Take note of this, then, as something you can learn by attending to the ideas that reason provides: We can think of extension *[l'étendue]* without thinking of anything else, from which it follows that it is a •thing, a •substance and not a •state. That is because we can't think of a state without thinking of the thing *of* which it is a state; for a •state of a thing is just •the thing itself in some condition or other. We can't think of shapes and motions without thinking of extension, because shapes and motions are simply states of extension. This is clear, if I am not mistaken. If you don't find it clear, it must be that you can't tell states of substances from the substances themselves; in which case we might as well stop philosophizing. For. . .

Aristes: Please let us go on philosophizing!

Theodore: Very well. The idea or archetype of extension is eternal and necessary. We see this idea, as I have already proved to you; and God also sees it, because nothing in him is hidden from him. We see it clearly and distinctly, I repeat, without thinking of anything else. We can perceive it by itself, or rather we can't perceive it as the state of some other thing, since it contains no necessary relation to other ideas. Now, anything that God •sees and makes us •see clearly and distinctly in his light is something that he can •do. He can

bring about anything that doesn't involve a contradiction, for he is all-powerful. So he can create extension—·that which is extended, *l'étendue*·—entirely by itself. It follows that this *étendue* will be a being or a substance, and the idea we have of it will represent its nature to us. So if God has created this extension, there will surely be matter, for what ·other· sort of being would that extension be? I believe you see *now* that this matter is incapable of thinking, of sensing, of reasoning.

Aristes: I admit that as our ideas are necessary and eternal and are the very ideas that God consults, when he makes things he will make ones that these ideas represent; and we won't be mistaken if we attribute to matter only what we see in its archetype. But perhaps we don't see this archetype in its entirety. . . . Perhaps

- the subject of extension,
- ·the *thing* that is extended·,
- the 'something else' that may be contained in the archetype of matter without being known to us,

will be capable of thinking.

12. Theodore: It will be capable of doing much more than that! You can have it doing anything you like, and no-one can will be able to challenge you. It can have thousands upon thousands of faculties, virtues, and wonderful properties. It can act in your soul, enlighten it, make it happy and unhappy. ['Act in' translates *agir en* and *agir dans*; 'act on' translates *agir sur*. It seems clear that Malebranche meant the first two differently from the third.] In short, there will be as many powers—and, when you come right down to it, as many *gods*—as there are different bodies. Since I know absolutely nothing about this 'something else' that you take to be the essence of matter, how can I know that it *doesn't* have all the qualities it pleases you to attribute to it? You can see from this •that if we are to know God's works we must consult the ideas of them that he gives us of them, ideas that are clear, ideas on the basis of which God designed his works; and •that we run tremendous risks if we go down any road but that one. For if we consult our senses and blindly swallow their testimony, they will persuade us that some bodies, at least, have marvellous power and intelligence.

Our senses tell us that fire spreads heat and light. They persuade us that plants and animals work for the survival of themselves and of their species with much skill and a kind of intelligence. We see then that there is more to the capacities of these bodies than mere shapes and motions. So the obscure and confused testimony of our senses leads us to think that there must be more to bodies than extension, since the states of extension can be nothing but motions and shapes. But let us

consult reason attentively,
consider the clear idea we have of bodies,
avoid confounding *ourselves* with bodies,

and then perhaps we shall discover that we are crediting bodies with having qualities and properties that *they* don't have and that only *we* have. You say that perhaps we don't see the whole of the archetype or idea of matter. ·Even· if that *were* really so, we ·still· oughtn't to attribute to matter anything except what the idea of matter represents to us, for we shouldn't base a judgment on what we *don't* know. . . . So note once again the driving force ·of my argument·, namely: **We can think of extension without thinking of anything else**. So God can create extension without creating anything else. And this extension will exist without that unknown *thing* that they attribute to matter. Extension will then be a substance and not a state of substance. [Theodore means something like this: 'People think of matter as some*thing* that is extended, and this *thing* thought tempts them to smuggle in powers and properties that don't come from extension; as it has tempted you,

Aristes, to smuggle in something that is capable of thinking. I am saying that extension is itself a substance; the thought of it doesn't involve any thought or pseudo-thought of an underlying *thing* that *is* extended.'] And *this* is what I think should be called 'body' or 'matter'. I have plenty of reasons for this. It's not just •that we can't think of things' states without thinking of the things *of* which they are the states (so that the only way to distinguish things from their states is to see if the former can be thought of without the latter); but also •that extension by itself with the properties everyone attributes to it is sufficient to explain all natural effects—I mean that whenever we observe an effect of matter, and know clearly what it is, its natural cause can be discovered in the idea of extension.

Aristes: I find that convincing. I understand better than ever that to know God's works we must •carefully consult the ideas that he in his wisdom contains, •silence our senses and especially our imaginings. But this road to the truth is so rough and difficult that hardly anyone travels along it. To see that the sun is shining brightly we need only open our eyes. To judge if sound is in the air, we need only to make some noise. Nothing easier! But when the mind is attending to the ideas that don't strike the senses, it works frightfully hard. We tire very soon, as I know from experience. How lucky *you* are to be able to meditate on metaphysical matters!

Theodore: I am made like others, my dear Aristes. I would be honoured if you thought I was like you; your only mistake about this is in thinking I am somehow superior. What would you expect? The difficulty we all find in connecting up with reason is a penalty for sin (and a proof of it!), and its driving force is the rebellion of the body. We are condemned to earn our livelihood by the sweat of our brows. In this life the mind must *work* to be nourished by truth—this is common to all men. But, believe me, this food of the mind is so delicious—and it gives so much eagerness to the soul that has tasted it—that although we get tired looking for it, we never tire of wanting it and we keep renewing our search; for this 'food' is what we are made for. But if I have tired you out, hand me that instrument—·that monochord·—so that I can give you a rest from ·fiercely intellectual· attention and convey through the senses, as far as possible, the truths I want to get you to understand.

Aristes: What do you want to do? I ·already· understand clearly that sound is not spread out in the air and that a string can't produce it. The reasons you have just given me seem convincing. Since all bodily states come down to spatial relations, it follows that neither •sound nor •the power of producing it is contained in •the idea of matter. That is enough for me. Still, here is another proof which occurs to me. [It concerns illusions experienced in dreams and in states of feverish illness. These illusory sounds etc. are 'only in the soul', Aristes says. He then continues with a further thought:] Everything you have told me up to now leads me to think that nothing in the objects of our senses is *similar* to the sensations we have of them. These objects correspond to their ideas, but it seems to me they have no ·systematic· relation to our sensations. Bodies are merely extension capable of motion and various shapes. This is evident when we consult the idea that represents them.

Theodore: Bodies, you say, have no resemblance to the sensations we have; and to know their properties we must consult not our senses but the clear idea of extension that represents the nature of bodies. Keep this important truth well in mind.

Aristes: It is obvious, and I'll never forget it.

13. Theodore: Never! Well, then, please tell me what an octave is and what is a fifth, or rather teach me what must be done to hear these musical intervals.

Aristes: That's easy. Pluck the whole string, and then put your finger *there* and pluck the string again, and you will hear an octave.

Theodore: Why am I to put my finger *there* and not *here*?

Aristes: Because if you put it *here* you would get a fifth and not an octave. Look, *look*—all the notes are marked. . . But you're laughing.

Theodore: I am now very knowledgeable, Aristes. I can make you hear any note I wish. But if we had broken our instrument, all our knowledge would be in bits.

Aristes: Not at all. I would make another. It's only a string on a board—anyone can do that.

Theodore: Yes, but that's not enough. The intervals must be marked exactly on the board. So how would you divide it up so as to mark where we should put our fingers to hear an octave, a fifth, and other intervals?

Aristes: I would pluck the whole string and then, ·while it was still sounding·, slide my finger along it until I heard the sound I wanted to mark. I do know music well enough to tune instruments.

Theodore: Your method is not very precise, since it is only by trial that you find what you are looking for. If you became deaf—or, rather, if there were a loosening of the small nerve that keeps your eardrum taut and tunes it to your instrument—what would become of your knowledge? Would you then be unable to mark exactly the different notes? If becoming deaf involves forgetting music, then your ·musical· science is not based on clear ideas. Reason has no part in it, for reason is unchangeable and necessary.

Aristes: Ah, Theodore! I had *already* forgotten what I just told you I would *never* forget. What was I thinking of? I gave you ridiculous answers, and you had reason to laugh. The trouble is that I naturally listen to my senses more than to my reason. I'm so used to consulting my •ears that I answered your question without •*thinking* well. Here is another answer, which you will like better. To mark an octave on this instrument we must divide the space along the string into two equal parts. Then if we first pluck the whole string and then pluck one or the other of its halves ·with a finger pressed down on its mid-point·, we will get an octave. Next we pluck the whole string and then two thirds of it, getting a fifth. Finally we pluck the whole string and then three quarters of it, getting a fourth; and the two last intervals add up to an octave. [The interval from C up to G is a fifth, and the interval from G up to the C above is a fourth.]

14. Theodore: That answer teaches me something. I understand it distinctly. I see from it that an octave—or rather the natural cause that produces the octave—is as 2 to 1, the fifth as 3 to 2, and the fourth as 4 to 3. These relations of numbers are clear. And, since you tell me that a plucked string yields these intervals when it has been divided into portions whose lengths are expressed by these numbers, I could mark them on the monochord even if I were deaf. That is reasoning on the basis of clear ideas. . . . But *why* are a fifth and a fourth equivalent to an octave?

Aristes: That is because *sound is to sound as string is to string*. Thus, since an octave is sounded when we pluck a whole string and then half of it, an octave is as 2 to 1. . . . [Aristes develops this in some detail, the developments all being arithmetical.]

Theodore: I conceive all this clearly, given that *sound is to sound as string to string*. But I don't understand this principle. Do you think it is based on clear ideas?

Aristes: Yes, I think so. For the string or its various vibrations cause different sounds. Now, the •whole cause is to its •half as •2 is to •1, and effects correspond exactly to their causes. So the effect of the whole cause is double the effect of half of it. And the •sound of the whole string is to the •sound of half of it as •2 is to •1.

Theodore: Is all this clear in your mind? As for me, I find some obscurity in it—and I try my best to yield only to the evidentness that clear ideas bring with them.

Aristes: What do you find to criticise in my reasoning?

15. Theodore: Well, it's clever enough—you aren't lacking in cleverness. But the underlying principle is obscure. It isn't based on clear ideas. Watch out for that! You think you know what you do in sensing, and you base your case on a snap judgment that you earlier admitted to be false. To make you aware of the fallacy in your proof, let me subject you to a little experiment. Give me your hand—I shan't do you any great harm. As I rub the hollow of your hand with the cuff of my sleeve, do you feel anything?

Aristes: I feel a little heat, or a pleasant sort of tickling.

Theodore: And now?

Aristes: Ow! Theodore, you're hurting me! You are rubbing too hard. I feel a distressing pain.

Theodore: No you don't, Aristes. You feel a pleasure two or three times greater than the ·tickling· one you felt just before, and I'll prove this to you by your own reasoning:

> My rubbing your hand is the cause of what you feel. Now, the •whole cause is to •half of it as •2 is to •1, and effects correspond exactly to the action of their causes. Hence, the effect of the •whole cause (or the whole action of the cause) is double the effect of •half of it.

So the doubled motion involved in rubbing twice as hard or twice as fast should produce twice as much pleasure. So I *haven't* given you pain, unless you maintain that •pain is to •pleasure as •2 is to •1.

Aristes: I am indeed punished for having reasoned on an obscure principle. You hurt me, and your excuse is a 'proof' that you were giving me a double pleasure. Nasty!

Theodore: You got off easily; if we had been near the fire, I might have done something much worse.

Aristes: What would you have done?

Theodore: Perhaps I would have taken a burning coal and put it somewhere near your hand; if you said that gave you pleasure, I would—to give you more pleasure—have touched your hand with it; and then I would have 'proved' to you by your own reasoning that you were wrong to complain.

Aristes: So I had a narrow escape! Is *that* how you instruct people?

Theodore: What do you want me to do? When I give you metaphysical proofs, you forget them right away. I have to get them to you through your senses, so that you'll have no difficulty understanding and remembering them. Why did you forget so quickly that •we should reason only on the basis of clear ideas, and that •a vibrating string can only agitate the air surrounding it and can't produce the different sounds you hear?

Aristes: It is because when I pluck the string I immediately hear the sound.

Theodore: I realize that. But you don't *conceive clearly* that the vibrations of a string can spread or produce sound. You agreed to that. The idea of matter doesn't contain *sound*; still less does it contain *the power of acting in the soul to make it hear sound*. From the fact that

> vibrations of a string or of the air are followed by one sound or another,

you may infer that

> in the present state of things, that is what is needed for you to hear sound.

But don't imagine that there is a necessary relation between these things—·i.e. between the vibration and the experience of hearing sound·. It may well be that I don't hear the same sounds as you, even if I hear the same notes or intervals. If (as is quite likely) my eardrum differs in thickness from yours by a certain amount, and so resonates more easily at a different pitch, I will surely hear a louder sound than you do when the string is plucked. And a final point: I don't see any quantitative relation between musical intervals. It's not clear that the two sounds making up an interval differ as *more* to *less* in the way the strings producing them differ ·as *longer* to *shorter*·. This appears evident to me.

Aristes: It seems so to me too. But given that the vibrations of a string don't cause sound, how does it come about that I hear a sound when the string is plucked?

Theodore: This is not the time to answer into that question, Aristes. We'll be easily able to answer it when we have treated the efficacy of causes, or laws of the union of soul and body. My present concern is only to get you to see the difference between •knowing clearly and •sensing confusedly. My only purpose is to convince you of this important truth: to know God's works, we must attend to the ideas that represent them, not to the sensations that we have of them. . . .

Aristes: I agree. I am fully convinced. Let us move on, for I get tired of hearing you endlessly repeating the same things.

16. Theodore: We shall move on to wherever you like. But, believe me, it isn't enough just to see a principle—we must see it *well*. For there is seeing and then again there is *seeing*. The principle I am getting into your mind is so necessary and so useful that it should be present to the mind at all times—not forgotten as you keep forgetting it. Let us see if you are quite convinced of it and do indeed know how to use it. Tell me why when two strings are tuned to the same note we can't pluck one without starting the other vibrating as well.

Aristes: That question seems to me to be very hard. In different authors I have read many explanations that hardly satisfy me. I am afraid that my own answer may start you joking again, or lead you to perform some experiment at my expense.

Theodore: No, no, Aristes, don't be afraid! But don't forget the 'clear ideas' principle. I'm sorry to keep on at you about this principle, but I'm afraid that 'sympathy' or some other chimera will keep you from following it.

Aristes: Well, let's see! When I pluck a string it moves the air by its vibrations. The air, which is now agitated, can give motion to other strings that it encounters.

Theodore: All right. But ·if that's the whole explanation then· other strings will be moved even if they are tuned to a different note from the first string.

Aristes: I was thinking about that. A little *sympathy* would fit in nicely here, but you won't allow it.

Theodore: I'm willing to accept the word for what ·little· it is worth. Certainly •there is 'sympathy' between strings tuned to the same note, because •they act on one another, and

that's what the word 'sympathy' means. But the problem is: what produces this sympathy?

Aristes: It isn't because of their length or thickness: there is sympathy between ·some pairs of· strings that are unequal ·in length and/or thickness·, and there is no sympathy between strings that are equal ·in those respects· but are not tuned to the same note. So everything must depend on the sound—·i.e. on the sameness of sound of the strings between which there is sympathy·. But this doesn't explain the sympathy, because the sound is not a state of the string and the string cannot produce it. Here I am indeed at a loss.

Theodore: You are easily at a loss. There is sympathy between strings when they are tuned to the same note. That's the fact you want to explain. Then see what makes two strings produce that same sound, and then you'll have everything you need to solve your problem.

Aristes: If two strings are equal in length and in thickness, they will produce the same sound if they are subject to the same amount of tension. If they have the same thickness and different lengths—one is twice as long as the other, say—four times as much tension will be needed in the longer one if they are to produce the same note.

Theodore: So what is the effect of difference in tension on strings that are equal in length and thickness?

Aristes: It makes them capable of sound that is more or less high pitched.

Theodore: Yes, but that's not what we want. That concerns only a difference in *sound*, and no sound can move a string: sound is an •effect of motion, not a •cause of it. Tell me then how tension makes the sound become higher.

Aristes: It seems to be because it makes the string vibrate faster.

Theodore: Good, that is just what we want! What makes the second string vibrate is the •vibration of the other, not the •sound it makes. Two strings equal in length and thickness and equally taut make the same sound because they vibrate at the same rate; and if the sound made by one rises higher than the other, this indicates that the former string has become more taut and has started to vibrate faster. Now one string moves another only by means of its vibrations, for a body is moved by another only by means of that other body's motion. This being so, tell me now why strings with the same note communicate their vibration, and dissonant strings don't—so far as the senses can tell, at any rate.

17. Aristes: I see the reason for this clearly. Here are two strings tuned to the same note: let that be yours and this be mine. When I pull my string back away from you and then release it, it pushes air towards you, and the air that it pushes moves your string a little. Mine then quickly makes a number of similar vibrations, each of which moves the air and pushes your string as the first jolt did. That is what makes your string vibrate; for several small jolts suitably spaced will produce a detectable movement; but when the jolts come at different rates, they interfere with one another. Thus when two strings are tuned to different notes—i.e. when they can't vibrate at the same rate or at commensurable rates because they have different tensions or their lengths or thicknesses are different and incommensurable—they can't move one another. [Two items are 'commensurable' if they are equal, or if their inequality can be expressed by fairly simple fractions—e.g. one is two thirds of the other.] For if my string moves and pushes the air and your string towards you at the same time that yours is pushing air towards me, then each will reduce the motion ·of the other· instead of increasing it. The vibrations of the strings must then be made equal, or one of them some

multiple of the other, if there is to be a detectable transfer of motion between them; and the motion will be the more detectable by the senses the more the interval between the notes they produce approaches unison. That is why in an octave they move more than in a fifth, and in a fifth more than in a fourth: the two strings begin their vibrations more often at the same instant. Are you happy with this reason?

Theodore: [After applauding Aristes for giving an explanation based on clear ideas, dealing with movements etc. and not with sounds, he continues:] What leads us to fall into error so often is the falsity or obscurity of our ideas rather than weakness of our minds. •Geometers rarely make mistakes, while •physicists make them most of the time. Why so? It is because •physicists generally reason with confused ideas while •geometers reason with ideas that are the clearest we have.

Aristes: I see the necessity of your principle better than ever. You did well to repeat it often and drive it home to me through my senses. I will try to remember it. [He repeats Theodore's main propositions, and continues:] Isn't this what you want me to keep well in mind, Theodore?

Theodore: Yes, Aristes; and, if you do, you will travel without fear in the land of intellects. . . . But don't assume that you *properly* know the things that I have told you and you have repeated, until you have meditated on them often. For we never fully grasp what men tell us unless internal truth repeats it to us while all creation is silent. Goodbye now, Aristes. I leave you alone with reason. Consult it in earnest and forget everything else.