# SIXTH MEDITATION – Excerpts from the Objections and Replies

## CATERUS

With regard to the essence of the soul and its distinction from the body, I have only a little to say. For I confess that our highly gifted author has already so exhausted me that I can hardly add one word more. His proof of the supposed distinction between the soul and the body appears to be based on the fact that the two can be distinctly conceived apart from each other. Here I refer the learned gentleman to Scotus, who says that for one object to be distinctly conceived apart from another, there need only be what he calls a *formal and objective* distinction between them (such a distinction is, he maintains, intermediate between a *real* distinction and a *conceptual* distinction). The distinction between God's justice and his mercy is of this kind. For, says Scotus, 'The formal concepts of the two are distinct prior to any operation of the intellect, so that one is not the same as the other. Yet it does not follow that because justice and mercy can be conceived apart from one another they can therefore exist apart.'

[Descartes to Caterus]

As to the 'formal' distinction which the learned theologian introduces on the authority of Scotus, let me say briefly that this kind of distinction does not differ from a modal distinction; moreover, it applies only to incomplete entities, which I have carefully distinguished from complete entities. It is sufficient for this kind of distinction that one thing be conceived distinctly and separately from another by an abstraction of the intellect which conceives the thing inadequately. It is not necessary to have such a distinct and separate conception of each thing that we can understand it as an entity in its own right, different from everything else; for this to be the case the distinction involved must be a real one. For example, the distinction between the motion and shape of a given body is a formal distinction. I can very well understand the motion apart from the shape, and vice versa, and I can understand either in abstraction from the body. But I cannot have a complete understanding of the motion apart from the thing in which motion occurs, or of the shape apart from the thing which has the shape; and I cannot imagine there to be motion in something which is incapable of possessing shape, or shape in something which is incapable of motion. In the same way, I cannot understand justice apart from the person who is just, or mercy apart from the person who is merciful; and I am not at liberty to imagine that the same person who is just is incapable of mercy. By contrast, I have a complete understanding of what a body is when I think that it is merely something having extension, shape and motion, and I deny that it has anything which belongs to the nature of a mind. Conversely, I understand the mind to be a complete thing, which doubts, understands, wills, and so on, even though I deny that it has any of the attributes which are contained in the idea of a body. This would be quite impossible if there were not a real distinction between the mind and the body.

## MERSENNE, ET AL.

*First*, then, may we remind you that your vigorous rejection of the images of all bodies as delusive was not something you actually and really carried through, but was merely a fiction of the mind, enabling you to draw the conclusion that you were exclusively a thinking thing. We point this out in case you should perhaps suppose that it is possible to go on to draw the conclusion that you are in fact nothing more than a mind, or thought, or a thinking thing. And we make the point solely in connection with the first two Meditations, in which you clearly show that, if nothing else, it is certain that you, who are thinking, exist. But let us pause a little here. The position so far is that you recognize that you are a thinking thing, but you do not know what this thinking thing is. What if it turned out to be a body which, by its various motions and encounters, produces what we call thought? Although you think you have ruled out every kind of body, you could have been mistaken here, since you did not exclude yourself, and you may be a body. How do you demonstrate that a body is incapable of thinking, or that corporeal motions are not in fact thought? The whole system of your body, which you think you have excluded, or else some of its parts—for example those which make up the brain—may combine to produce the motions which we call thoughts. You say 'I am a thinking thing'; but how do you know that you are not corporeal motion, or a body which is in motion?

[…]

*Seventhly*, you say not one word about the immortality of the human mind. Yet this is something you should have taken special care to prove and demonstrate, to counter those people, themselves unworthy of immortality, who utterly deny and even perhaps despise it. What is more, you do not yet appear to have provided an adequate proof of the fact that the mind is distinct from every kind of body, as we mentioned under point one. We now make the additional point that it does not seem to follow from the fact that the mind is distinct from the body that it is incorruptible or immortal. What if its nature were limited by the duration of the life of the body, and God had endowed it with just so much strength and existence as to ensure that it came to an end with the death of the body?

[Descartes to Mersenne, et al.]

You go on to ask how I demonstrate that a body is incapable of thinking. You will forgive me if I reply that I have as yet provided no opportunity for this question to be raised. I first dealt with the matter in the Sixth Meditation where I said 'the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct', etc. And a little later on I said:

> It is true that I have a body that is very closely joined to me. But nevertheless on the one hand I have a clear and distinct idea of myself, in so far as I am a thinking, non-extended thing; and on the other hand I have a distinct idea of body, in so far as this is an extended, non-thinking thing. And accordingly it is certain that I (that is, the mind) am really distinct from my body and can exist without it.

From this we may easily go on to say 'whatever can think is a mind, or is called a mind; but since mind and body are in reality distinct, no body is a mind; therefore no body can think'.

I do not see what you can deny here. Do you claim that if we clearly understand one thing apart from another this is not sufficient for the recognition that the two things are really distinct? If so, you must provide a more reliable criterion for a real distinction—and I am confident that none can be provided. What will you suggest? Perhaps that there is a real distinction between two things if one can exist apart from the other? But now I will ask how you know that one thing can exist apart from another. You must be able to know this, if it is to serve as the criterion for a real distinction. You may say that you derive this knowledge from the senses, since you can see, or touch etc., the one thing when the other is not present. But the evidence of the senses is less reliable than that of the intellect: it can variously happen that one and the same thing appears under different forms or in several places or in several different ways, and so be taken for two things. And, after all, if you remember the remarks about the wax at the end of the Second Meditation you will realize that bodies are not strictly speaking perceived by the senses at all, but only by the intellect; so having a sensory perception of one thing apart from another simply amounts to our having an idea of one thing and understanding that this idea is not the same as an idea of something else. The sole possible source of such understanding is that we perceive one thing apart from another, and such understanding cannot be certain unless the idea of each thing is clear and distinct. So if the proposed criterion for a real distinction is to be reliable, it must reduce to the one which I put forward.

If there are those who claim that they do not have distinct ideas of mind and body, I can only ask them to pay careful attention to the contents of the Second Meditation. If, as may well be the case, they take the view that the formation of thoughts is due to the combined activity of parts of the brain, they should realize that this view is not based on any positive argument, but has simply arisen from the fact that, in the first place, they have never had the experience of being without a body and that, in the second place, they have frequently been obstructed by the body in their operations. It is just as if someone had had his legs permanently shackled from infancy: he would think the shackles were part of his body and that he needed them for walking.

[…]

*Seventhly*, as to why I wrote nothing concerning the immortality of the soul, I did already explain this in the Synopsis of my *Meditations*. And, as I have shown above, I did provide an adequate proof of the fact that the soul is distinct from every body. However, you go on to say that it does not follow from the fact that the soul is distinct from the body that it is immortal, since it could still be claimed that God gave it such a nature that its duration comes to an end simultaneously with the end of the body's life. Here I admit that I cannot refute what you say. For I do not take it upon myself to try to use the power of human reason to settle any of those matters which depend on the free will of God. Our natural knowledge tells us that the mind is distinct from the body, and that it is a substance. But in the case of the human body, the difference between it and other bodies consists merely in the arrangement of the limbs and other accidents of this sort; and the final death of the body depends solely on a division or change of shape. Now we have no convincing evidence or precedent to suggest that the death or annihilation of a substance like the mind must result from such a trivial cause as a change in shape, for this is simply a mode, and what is more not a mode of the mind, but a mode of the body which is really distinct from the mind. Indeed, we do not even have any convincing evidence or precedent to suggest that any substance can perish. And this entitles us to conclude that the mind, in so far as it can be known by natural philosophy, is immortal.

But if your question concerns the absolute power of God, and you are asking whether he may have decreed that human souls cease to exist precisely when the bodies which he joined to them are destroyed, then it is for God alone to give the answer. And since God himself has revealed to us that this will not occur, there remains not even the slightest room for doubt on this point.

[…]

I now turn to your proposal that I should set out my arguments in geometrical fashion to enable the reader to perceive them 'as it were at a single glance'. It is worth explaining here how far I have already followed this method, and how far I think it should be followed in future. I make a distinction between two things which are involved in the geometrical manner of writing, namely, the order, and the method of demonstration.

The order consists simply in this. The items which are put forward first must be known entirely without the aid of what comes later; and the remaining items must be arranged in such a way that their demonstration depends solely on what has gone before. I did try to follow this order very carefully in my *Meditations*, and my adherence to it was the reason for my dealing with the distinction between the mind and the body only at the end, in the Sixth Meditation, rather than in the Second. It also explains why I deliberately and knowingly omitted many matters which would have required an explanation of an even larger number of things.

As for the method of demonstration, this divides into two varieties: the first proceeds by analysis and the second by synthesis.

Analysis shows the true way by means of which the thing in question was discovered methodically and as it were *a priori*, so that if the reader is willing to follow it and give sufficient attention to all points, he will make the thing his own and understand it just as perfectly as if he had discovered it for himself. But this method contains nothing to compel belief in an argumentative or inattentive reader; for if he fails to attend even to the smallest point, he will not see the necessity of the conclusion. Moreover there are many truths which—although it is vital to be aware of them—this method often scarcely mentions, since they are transparently clear to anyone who gives them his attention.

Synthesis, by contrast, employs a directly opposite method where the search is, as it were, *a posteriori* (though the proof itself is often more *a priori* than it is in the analytic method). It demonstrates the conclusion clearly and employs a long series of definitions, postulates, axioms, theorems and problems, so that if anyone denies one of the conclusions it can be shown at once that it is contained in what has gone before, and hence the reader, however argumentative or stubborn

he may be, is compelled to give his assent. However, this method is not as satisfying as the method of analysis, nor does it engage the minds of those who are eager to learn, since it does not show how the thing in question was discovered.

It was synthesis alone that the ancient geometers usually employed in their writings. But in my view this was not because they were utterly ignorant of analysis, but because they had such a high regard for it that they kept it to themselves like a sacred mystery.

Now it is analysis which is the best and truest method of instruction, and it was this method alone which I employed in my *Meditations*. As for synthesis, which is undoubtedly what you are asking me to use here, it is a method which it may be very suitable to deploy in geometry as a follow-up to analysis, but it cannot so conveniently be applied to these metaphysical subjects.

The difference is that the primary notions which are presupposed for the demonstration of geometrical truths are readily accepted by anyone, since they accord with the use of our senses. Hence there is no difficulty there, except in the proper deduction of the consequences, which can be done even by the less attentive, provided they remember what has gone before. Moreover, the breaking down of propositions to their smallest elements is specifically designed to enable them to be recited with ease so that the student recalls them whether he wants to or not.

In metaphysics by contrast there is nothing which causes so much effort as making our perception of the primary notions clear and distinct. Admittedly, they are by their nature as evident as, or even more evident than, the primary notions which the geometers study; but they conflict with many preconceived opinions derived from the senses which we have got into the habit of holding from our earliest years, and so only those who really concentrate and meditate and withdraw their minds from corporeal things, so far as is possible, will achieve perfect knowledge of them. Indeed, if they were put forward in isolation, they could easily be denied by those who like to contradict just for the sake of it.

This is why I wrote 'Meditations' rather than 'Disputations', as the philosophers have done, or 'Theorems and Problems', as the geometers would have done. In so doing I wanted to make it clear that I would have nothing to do with anyone who was not willing to join me in meditating and giving the subject attentive consideration. For the very fact that someone braces himself to attack the truth makes him less suited to perceive it, since he will be withdrawing his consideration from the convincing arguments which support the truth in order to find counter-arguments against it.

But at this point someone may raise the following objection: 'When we know that the proposition before us is true, we certainly should not look for arguments to contradict it; but so long as we remain in doubt about its truth it is right to deploy all the arguments on either side in order to find out which are the stronger. Nor does it seem that I am making a fair demand if I expect my arguments to be accepted as correct before they have been scrutinized, while at the same time prohibiting consideration of any counter-arguments.'

This is not a just criticism. For the arguments in respect of which I ask my readers to be attentive and not argumentative are not of a kind which could possibly divert their attention from any other arguments which have even the slightest chance of containing more truth than is to be found in mine. Now my exposition includes the highest level of doubt about everything, and I cannot recommend too strongly that each item should be scrutinized with the utmost care, so that absolutely nothing is accepted unless it has been so clearly and distinctly perceived that we cannot but assent to it. By contrast, the only opinions I want to steer my readers' minds away from are those which they have never properly examined—opinions which they have acquired not on the basis of any firm reasoning but from the senses alone. So in my view no one who restricts his consideration to my propositions can possibly think he runs a greater risk of error than he would incur by turning his mind away and directing it to other propositions which are in a sense opposed to mine and which reveal only darkness (i.e. the preconceived opinions of the senses).

I am therefore right to require particularly careful attention from my readers; and the style of writing that I selected was one which I thought would be most capable of generating such attention. I am convinced that my readers will derive more benefit from this than they will themselves realize; for when the synthetic method of writing is used, people generally think that they have learned more than is in fact the case. In addition, I think it is fair for me to reject out of hand, and despise as worthless, the verdict given on my work by those who refuse to meditate with me and who stick to their preconceived opinions.

But I know that even those who do concentrate, and earnestly pursue the truth, will find it very difficult to take in the entire structure of my *Meditations*, while at the same time having a distinct grasp of the individual parts that make it up. Yet I reckon that both the overall and the detailed scrutiny is necessary if the reader is to derive the full benefit from my work. I shall therefore append here a short exposition in the synthetic style, which will, I hope, assist my readers a little. But they must please realize that I do not intend to include as much material as I put in the *Meditations*, for if I did so I should have to go on much longer than I did there. And even the items that I do include will not be given a fully precise explanation. This is partly to achieve brevity and partly to prevent anyone supposing that what follows is adequate on its own. Anyone who thinks this may give less careful attention to the *Meditations* themselves; yet I am convinced that it is the *Meditations* which will yield by far the greater benefit.

## *Arguments proving the existence of God and the distinction between the soul and the body arranged in geometrical fashion*

### DEFINITIONS

I. *Thought.* I use this term to include everything that is within us in such a way that we are immediately aware of it. Thus all the operations of the will, the intellect, the imagination and the senses are thoughts. I say 'immediately' so as to exclude the consequences of thoughts; a voluntary movement, for example, originates in a thought but is not itself a thought.

II. *Idea.* I understand this term to mean the form of any given thought, immediate perception of which makes me aware of the thought. Hence, whenever I express something in words, and understand what I am saying, this very fact makes it certain that there is within me an idea of what is signified by the words in question. Thus it is not only the images depicted in the imagination which I call 'ideas'. Indeed, in so far as these images are in the corporeal imagination, that is, are depicted in some part of the brain, I do not call them 'ideas' at all; I call them 'ideas' only in so far as they give form to the mind itself, when it is directed towards that part of the brain.

III. *Objective reality of an idea.* By this I mean the being of the thing which is represented by an idea, in so far as this exists in the idea. In the same way we can talk of 'objective perfection', 'objective intricacy' and so on. For whatever we perceive as being in the objects of our ideas exists objectively in the ideas themselves.

IV. Whatever exists in the objects of our ideas in a way which exactly corresponds to our perception of it is said to exist *formally* in those objects. Something is said to exist *eminently* in an object when, although it does not exactly correspond to our perception of it, its greatness is such that it can fill the role of that which does so correspond.

V. *Substance.* This term applies to every thing in which whatever we perceive immediately resides, as in a subject, or to every thing by means of which whatever we perceive exists. By 'whatever we perceive' is meant any property, quality or attribute of which we have a real idea. The only idea we have of a substance itself, in the strict sense, is that it is the thing in which whatever we perceive (or whatever has objective being in one of our ideas) exists, either formally or eminently. For we know by the natural light that a real attribute cannot belong to nothing.

VI. The substance in which thought immediately resides is called *mind.* I use the term 'mind' rather than 'soul' since the word 'soul' is ambiguous and is often applied to something corporeal.

VII. The substance which is the immediate subject of local extension and of the accidents which presuppose extension, such as shape, position, local motion and so on, is called *body.* Whether what we call mind and body are one and the same substance, or two different substances, is a question which will have to be dealt with later on.

VIII. The substance which we understand to be supremely perfect, and in which we conceive absolutely nothing that implies any defect or limitation in that perfection, is called *God.*

IX. When we say that something is *contained in the nature or concept* of a thing, this is the same as saying that it is true of that thing, or that it can be asserted of that thing.

X. Two substances are said to be *really distinct* when each of them can exist apart from the other.

## POSTULATES

The *first* request I make of my readers is that they should realize how feeble are the reasons that have led them to trust their senses up till now, and how uncertain are all the judgements that they have built up on the basis of the senses. I ask them to reflect long and often on this point, till they eventually acquire the habit of no longer placing too much trust in the senses. In my view this is a prerequisite for perceiving the certainty that belongs to metaphysical things.

*Secondly*, I ask them to reflect on their own mind, and all its attributes. They will find that they cannot be in doubt about these, even though they suppose that everything they have ever acquired from their senses is false. They should continue with this reflection until they have got into the habit of perceiving the mind clearly and of believing that it can be known more easily than any corporeal thing.

*Thirdly*, I ask them to ponder on those self-evident propositions that they will find within themselves, such as 'The same thing cannot both be and not be at the same time', and 'Nothingness cannot be the efficient cause of anything', and so on. In this way they will be exercising the intellectual vision which nature gave them, in the pure form which it attains when freed from the senses; for sensory appearances generally interfere with it and darken it to a very great extent. And by this means the truth of the following axioms will easily become apparent to them.

*Fourthly*, I ask them to examine the ideas of those natures which contain a combination of many attributes, such as the nature of a triangle, or of a square, or of any other figure, as well as the nature of mind, the nature of body, and above all the nature of God, or the supremely perfect being. And they should notice that whatever we perceive to be contained in these natures can be truly affirmed of them. For example, the fact that its three angles are equal to two right angles is contained in the nature of a triangle; and divisibility is contained in the nature of body, or of an extended thing (for we cannot conceive of any extended thing which is so small that we cannot divide it, at least in our thought). And because of these facts it can be truly asserted that the three angles of every triangle are equal to two right angles and that every body is divisible.

*Fifthly*, I ask my readers to spend a great deal of time and effort on contemplating the nature of the supremely perfect being. Above all they should reflect on the fact that the ideas of all other natures contain possible existence, whereas the idea of God contains not only possible but wholly necessary existence. This alone, without a formal argument, will make them realize that God exists; and this will eventually be just as self-evident to them as the fact that the number two is even or that three is odd, and so on. For there are certain truths which some people find self-evident, while others come to understand them only by means of a formal argument.

*Sixthly*, I ask my readers to ponder on all the examples that I went through in my *Meditations*, both of clear and distinct perception, and of obscure and confused perception, and thereby accustom themselves to distinguishing what is clearly known from what is obscure. This is something that it is easier to learn

by examples than by rules, and I think that in the *Meditations* I explained, or at least touched on, all the relevant examples.

*Seventhly*, and lastly, when they notice that they have never detected any falsity in their clear perceptions, while by contrast they have never, except by accident, found any truth in matters which they grasp only obscurely, I ask them to conclude that it is quite irrational to cast doubt on the clear and distinct perceptions of the pure intellect merely because of preconceived opinions based on the senses, or because of mere hypotheses which contain an element of the unknown. And as a result they will readily accept the following axioms as true and free of doubt. Nevertheless, many of these axioms could have been better explained, and indeed they should have been introduced as theorems rather than as axioms, had I wished to be more precise.

### AXIOMS OR COMMON NOTIONS

I. Concerning every existing thing it is possible to ask what is the cause of its existence. This question may even be asked concerning God, not because he needs any cause in order to exist, but because the immensity of his nature is the cause or reason why he needs no cause in order to exist.

II. There is no relation of dependence between the present time and the immediately preceding time, and hence no less a cause is required to preserve something than is required to create it in the first place.

III. It is impossible that *nothing*, a non-existing thing, should be the cause of the existence of anything, or of any actual perfection in anything.

IV. Whatever reality or perfection there is in a thing is present either formally or eminently in its first and adequate cause.

V. It follows from this that the objective reality of our ideas needs a cause which contains this reality not merely objectively but formally or eminently. It should be noted that this axiom is one which we must necessarily accept, since on it depends our knowledge of all things, whether they are perceivable through the senses or not. How do we know, for example, that the sky exists? Because we see it? But this 'seeing' does not affect the mind except in so far as it is an idea—I mean an idea which resides in the mind itself, not an image depicted in the corporeal imagination. Now the only reason why we can use this idea as a basis for the judgement that the sky exists is that every idea must have a really existing cause of its objective reality; and in this case we judge that the cause is the sky itself. And we make similar judgements in other cases.

VI. There are various degrees of reality or being: a substance has more reality than an accident or a mode; an infinite substance has more reality than a finite substance. Hence there is more objective reality in the idea of a substance than in the idea of an accident; and there is more objective reality in the idea of an infinite substance than in the idea of a finite substance.

VII. The will of a thinking thing is drawn voluntarily and freely (for this is the essence of will), but nevertheless inevitably, towards a clearly known good. Hence, if it knows of perfections which it lacks, it will straightaway give itself these perfections, if they are in its power.

VIII. Whatever can bring about a greater or more difficult thing can also bring about a lesser thing.

IX. It is a greater thing to create or preserve a substance than to create or preserve the attributes or properties of that substance. However, it is not a greater thing to create something than to preserve it, as has already been said.

X. Existence is contained in the idea or concept of every single thing, since we cannot conceive of anything except as existing. Possible or contingent existence is contained in the concept of a limited thing, whereas necessary and perfect existence is contained in the concept of a supremely perfect being.

### PROPOSITION I

*The existence of God can be known merely by considering his nature*

*Demonstration*

To say that something is contained in the nature or concept of a thing is the same as saying that it is true of that thing (Def. IX). But necessary existence is contained in the concept of God (Axiom X). Therefore it may be truly affirmed of God that necessary existence belongs to him, or that he exists.

This is the syllogism which I employed above in replying to the sixth point in your Objections. And its conclusion can be grasped as self-evident by those who are free of preconceived opinions, as I said above, in the Fifth Postulate. But since it is not easy to arrive at such clear mental vision, we shall now endeavour to establish the same result by other methods.

### PROPOSITION II

*The existence of God can be demonstrated* a posteriori *merely from the fact that we have an idea of God within us*

*Demonstration*

The objective reality of any of our ideas requires a cause which contains the very same reality not merely objectively but formally or eminently (Axiom V). But we have an idea of God (Def. II and VIII), and the objective reality of this idea is not contained in us either formally or eminently (Axiom VI); moreover it cannot be contained in any other being except God himself (Def. VIII). Therefore this idea of God, which is in us, must have God as its cause; and hence God exists (Axiom III).

PROPOSITION III

*God's existence can also be demonstrated from the fact that we, who possess the idea of God, exist*

*Demonstration*

If I had the power of preserving myself, how much more would I have the power of giving myself the perfections which I lack (Axioms VIII and IX); for these perfections are merely attributes of a substance, whereas I am a substance. But I do not have the power of giving myself these perfections; if I did, I should already have them (Axiom VII). Therefore I do not have the power of preserving myself.

Now I could not exist unless I was preserved throughout my existence either by myself, if I have that power, or by some other being who has it (Axioms I and II). But I do exist, and yet, as has just been proved, I do not have the power of preserving myself. Therefore I am preserved by some other being.

Moreover, he who preserves me has within himself, either formally or eminently, whatever is in me (Axiom IV). But I have within me the perception of many of the perfections which I lack, as well as an idea of God (Defs. II and VIII). Therefore he who preserves me has a perception of the same perfections.

Finally, this being cannot have the perception of any perfections which he lacks, or which he does not have within himself either formally or eminently (Axiom VII). For since he has the power of preserving me, as I have already said, how much more would he have the power of giving himself those perfections if he lacked them (Axioms VIII and IX). But he has the perception of all the perfections which I know I lack and which I conceive to be capable of existing only in God, as has just been proved. Therefore he has the perfections within himself either formally or eminently, and hence he is God.

COROLLARY

*God created the heavens and the earth and everything in them. Moreover he can bring about everything which we clearly perceive in a way exactly corresponding to our perception of it*

*Demonstration*

All this clearly follows from the preceding proposition. For in that proposition we proved that God exists from the fact that there must exist someone who possesses either formally or eminently all the perfections of which we have any idea. But we have the idea of a power so great that the possessor of this power, and he alone, created the heavens and the earth and is capable of producing everything that I understand to be possible. Therefore in proving God's existence we have also proved these other facts about him.

PROPOSITION IV

*There is a real distinction between the mind and the body*

*Demonstration*

God can bring about whatever we clearly perceive in a way exactly corresponding to our perception of it (preceding Corollary). But we clearly perceive the mind, that is, a thinking substance, apart from the body, that is, apart from an extended substance (Second Postulate). And conversely we can clearly perceive the body apart from the mind (as everyone readily admits). Therefore the mind can, at least through the power of God, exist without the body; and similarly the body can exist apart from the mind.

Now if one substance can exist apart from another the two are really distinct (Def. X). But the mind and the body are substances (Defs. V, VI and VII) which can exist apart from each other (as has just been proved). Therefore there is a real distinction between the mind and the body.

Notice that I introduce the power of God as a means to separate mind and body not because any extraordinary power is needed to bring about such a separation but because the preceding arguments have dealt solely with God, and hence there was nothing else I could use to make the separation. Our knowledge that two things are really distinct is not affected by the nature of the power that separates them.

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## HOBBES

*On the Sixth Meditation ('The existence of material things')*

FIFTEENTH OBJECTION

> For God has given me no faculty at all for recognizing this [viz. whether ideas are emitted by bodies or not]; on the contrary, he has given me a great propensity to believe that they are produced by corporeal things. So I do not see how God could be understood to be anything but a deceiver if the ideas were transmitted from a source other than corporeal things. It follows that corporeal things exist.

The standard view is that doctors are not at fault if they deceive their patients for their health's sake, and that fathers are not at fault if they deceive their children for their own good. For the crime of deception consists not in the falsity of what is said but in the harm done by the deceiver. M. Descartes should thus consider the proposition 'God can in no case deceive us' and see whether it is universally true. For if it is not universally true, the conclusion 'Therefore corporeal things exist' does not follow.

*Reply* [Descartes to Hobbes]

My conclusion does not require that we can in no case be deceived (indeed, I have readily admitted that we are often deceived). All that I require is that we are not deceived in cases where our going wrong would suggest an intention to de-

ceive on the part of God; for it is self-contradictory that God should have such an intention. Once more my opponent's reasoning is invalid.

### FINAL OBJECTION

[Hobbes to Descartes]

> For I now notice that there is a vast difference between the two [viz. between the waking state and dreams], in that dreams are never linked by memory with all the other actions of life.

Consider someone who dreams that he is in doubt as to whether he is dreaming or not. My question is whether such a man could not dream that his dream fits in with his ideas of a long series of past events. If this is possible, then what appear to the dreamer to be actions belonging to his past life could be judged to be true occurrences, just as if he were awake. Moreover, as the author himself asserts, the certainty and truth of all knowledge depends solely on our knowledge of the true God. But in that case an atheist cannot infer that he is awake on the basis of memory of his past life. The alternative is that someone can know he is awake without knowledge of the true God.

*Reply* [Descartes to Hobbes]

A dreamer cannot really connect his dreams with the ideas of past events, though he may dream that he does. For everyone admits that a man may be deceived in his sleep. But afterwards, when he wakes up, he will easily recognize his mistake.

An atheist can infer that he is awake on the basis of memory of his past life. But he cannot know that this criterion is sufficient to give him the certainty that he is not mistaken, if he does not know that he was created by a non-deceiving God.

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## ARNAULD

### THE NATURE OF THE HUMAN MIND

The first thing that I find remarkable is that our distinguished author has laid down as the basis for his entire philosophy exactly the same principle as that laid down by St Augustine[.] … This is like what M. Descartes says: 'But there is a deceiver of supreme power and cunning who is deliberately and constantly deceiving me. In that case I too undoubtedly exist, if he is deceiving me.' But let us go on from here and, more to the point, see how this principle can be used to derive the result that our mind is separate from our body.

I can doubt whether I have a body, and even whether there are any bodies at all in the world. Yet for all that, I may not doubt that I am or exist, so long as I am doubting or thinking.

Therefore I who am doubting and thinking am not a body. For, in that case, in having doubts about my body I should be having doubts about myself.

Indeed, even if I obstinately maintain that there are no bodies whatsoever, the proposition still stands, namely that I am something, and hence I am not a body.

This is certainly very acute. But someone is going to bring up the objection which the author raises against himself: the fact that I have doubts about the body, or deny that it exists, does not bring it about that no body exists. 'Yet may it not perhaps be the case that these very things which I am supposing to be nothing, because they are unknown to me, are in reality identical with the "I" of which I am aware? I do not know,' he says 'and for the moment I shall not argue the point. I know that I exist; the question is, what is this "I" that I know? If the "I" is understood strictly as we have been taking it, then it is quite certain that knowledge of it does not depend on things of whose existence I am as yet unaware.'

But the author admits that in the argument set out in the *Discourse on the Method* the proof excluding anything corporeal from the nature of the mind was not put forward 'in an order corresponding to the actual truth of the matter' but merely in an order corresponding to his 'own perception'. So the sense of the passage was that he was aware of nothing at all which he knew belonged to his essence except that he was a thinking thing. From this answer it is clear that the objection still stands in precisely the same form as it did before, and that the question he promised to answer still remains outstanding: How does it follow, from the fact that he is aware of nothing else belonging to his essence, that nothing else does in fact belong to it? I must confess that I am somewhat slow, but I have been unable to find anywhere in the Second Meditation an answer to this question. As far as I can gather, however, the author does attempt a proof of this claim in the Sixth Meditation, since he takes it to depend on his having clear knowledge of God, which he had not yet arrived at in the Second Meditation. This is how the proof goes:

> I know that everything which I clearly and distinctly understand is capable of being created by God so as to correspond exactly with my understanding of it. Hence the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct, since they are capable of being separated, at least by God. The question of what kind of power is required to bring about such a separation does not affect the judgement that the two things are distinct . . . Now on the one hand I have a clear and distinct idea of myself, in so far as I am simply a thinking, non-extended thing; and on the other hand I have a distinct idea of body, in so far as this is simply an extended, non-thinking thing. And accordingly, it is certain that I am really distinct from my body, and can exist without it.

We must pause a little here, for it seems to me that in these few words lies the crux of the whole difficulty.

First of all, if the major premiss of this syllogism is to be true, it must be taken to apply not to any kind of knowledge of a thing, nor even to clear and distinct knowledge; it must apply solely to knowledge which is adequate. For our distinguished author admits in his reply to the theologian [Caterus], that if one thing can be conceived distinctly and separately from another 'by an abstraction of the intellect which conceives the thing inadequately', then this is sufficient for there to be a formal distinction between the two, but it does not require that there be a real distinction. And in the same passage he draws the following conclusion:

By contrast, I have a complete understanding of what a body is when I think that it is merely something having extension, shape and motion, and I deny that it has anything which belongs to the nature of a mind. Conversely, I understand the mind to be a complete thing, which doubts, understands, wills, and so on, even though I deny that it has any of the attributes which are contained in the idea of a body. Hence there is a real distinction between the body and the mind.

But someone may call this minor premiss into doubt and maintain that the conception you have of yourself when you conceive of yourself as a thinking, non-extended thing is an inadequate one; and the same may be true of your conception of yourself as an extended, non-thinking thing. Hence we must look at how this is proved in the earlier part of the argument. For I do not think that this matter is so clear that it should be assumed without proof as a first principle that is not susceptible of demonstration.

As to the first part of your claim, namely that you have a complete understanding of what a body is when you think that it is merely something having extension, shape, motion etc., and you deny that it has anything which belongs to the nature of a mind, this proves little. For those who maintain that our mind is corporeal do not on that account suppose that every body is a mind. On their view, body would be related to mind as a genus is related to a species. Now a genus can be understood apart from a species, even if we deny of the genus what is proper and peculiar to the species—hence the common maxim of logicians, 'The negation of the species does not negate the genus.' Thus I can understand the genus 'figure' apart from my understanding of any of the properties which are peculiar to a circle. It therefore remains to be proved that the mind can be completely and adequately understood apart from the body.

I cannot see anywhere in the entire work an argument which could serve to prove this claim, apart from what is suggested at the beginning: 'I can deny that any body exists, or that there is any extended thing at all, yet it remains certain to me that I exist, so long as I am making this denial or thinking it. Hence I am a thinking thing, not a body, and the body does not belong to the knowledge I have of myself.'

But so far as I can see, the only result that follows from this is that I can obtain some knowledge of myself without knowledge of the body. But it is not yet transparently clear to me that this knowledge is complete and adequate, so as to enable me to be certain that I am not mistaken in excluding body from my essence. I shall explain the point by means of an example.

Suppose someone knows for certain that the angle in a semi-circle is a right angle, and hence that the triangle formed by this angle and the diameter of the circle is right-angled. In spite of this, he may doubt, or not yet have grasped for certain, that the square on the hypotenuse is equal to the squares on the other two sides; indeed he may even deny this if he is misled by some fallacy. But now, if he uses the same argument as that proposed by our illustrious author, he may appear to have confirmation of his false belief, as follows: 'I clearly and distinctly perceive', he may say, 'that the triangle is right-angled; but I doubt that the square on the hypotenuse is equal to the squares on the other two sides; therefore it does not belong to the essence of the triangle that the square on its hypotenuse is equal to the squares on the other sides.'

Again, even if I deny that the square on the hypotenuse is equal to the square on the other two sides, I still remain sure that the triangle is right-angled, and my mind retains the clear and distinct knowledge that one of its angles is a right angle. And given that this is so, not even God could bring it about that the triangle is not right-angled.

I might argue from this that the property which I doubt, or which can be removed while leaving my idea intact, does not belong to the essence of the triangle.

Moreover, 'I know', says M. Descartes, 'that everything which I clearly and distinctly understand is capable of being created by God so as to correspond exactly with my understanding of it. And hence the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct, since they are capable of being separated by God.' Yet I clearly and distinctly understand that this triangle is right-angled, without understanding that the square on the hypotenuse is equal to the squares on the other sides. It follows on this reasoning that God, at least, could create a right-angled triangle with the square on its hypotenuse not equal to the squares on the other sides.

I do not see any possible reply here, except that the person in this example does not clearly and distinctly perceive that the triangle is right-angled. But how is my perception of the nature of my mind any clearer than his perception of the nature of the triangle? He is just as certain that the triangle in the semi-circle has one right angle (which is the criterion of a right-angled triangle) as I am certain that I exist because I am thinking.

Now although the man in the example clearly and distinctly knows that the triangle is right-angled, he is wrong in thinking that the aforesaid relationship between the squares on the sides does not belong to the nature of the triangle. Similarly, although I clearly and distinctly know my nature to be something that thinks, may I, too, not perhaps be wrong in thinking that nothing else belongs to my nature apart from the fact that I am a thinking thing? Perhaps the fact that I am an extended thing may also belong to my nature.

Someone may also make the point that since I infer my existence from the fact that I am thinking, it is certainly no surprise if the idea that I form by thinking of myself in this way represents to my mind nothing other than myself as a thinking thing. For the idea was derived entirely from my thought. Hence it seems that this idea cannot provide any evidence that nothing belongs to my essence beyond what is contained in the idea.

It seems, moreover, that the argument proves too much, and takes us back to the Platonic view (which M. Descartes nonetheless rejects) that nothing corporeal belongs to our essence, so that man is merely a rational soul and the body merely a vehicle for the soul—a view which gives rise to the definition of man as 'a soul which makes use of a body'.

If you reply that body is not straightforwardly excluded from my essence, but is ruled out only and precisely in so far as I am a thinking thing, it seems that there is a danger that someone will suspect that my knowledge of myself as a thinking thing does not qualify as knowledge of a being of which I have a complete and adequate conception; it seems instead that I conceive of it only inadequately, and by a certain intellectual abstraction.

Geometers conceive of a line as a length without breadth, and they conceive of a surface as length and breadth without depth, despite the fact that no length exists without breadth and no breadth without depth. In the same way, someone may perhaps suspect that every thinking thing is also an extended thing—an extended thing which, besides the attributes it has in common with other extended things, such as shape, motion, etc., also possesses the peculiar power of thought. This would mean that although, simply in virtue of this power, it can by an intellectual abstraction be apprehended as a thinking thing, in reality bodily attributes may belong to this thinking thing. In the same way, although quantity can be conceived in terms of length alone, in reality breadth and depth belong to every quantity, along with length.

The difficulty is increased by the fact that the power of thought appears to be attached to bodily organs, since it can be regarded as dormant in infants and extinguished in the case of madmen. And this is an objection strongly pressed by those impious people who try to do away with the soul.

So far I have dealt with the real distinction between our mind and the body. But since our distinguished author has undertaken to demonstrate the immortality of the soul, it may rightly be asked whether this evidently follows from the fact that the soul is distinct from the body. According to the principles of commonly accepted philosophy this by no means follows, since people ordinarily take it that the souls of brute animals are distinct from their bodies, but nevertheless perish along with them.

I had got as far as this in my comments, and was intending to show how the author's principles, which I thought I had managed to gather from his method of philosophizing, would enable the immortality of the soul to be inferred very easily from the real distinction between the mind and the body. But at this point, a little study composed by our illustrious author [the Synopsis of the *Meditations*] was sent to me, which apart from shedding much light on the work as a whole, puts forward the same solution to the point at issue which I was on the point of proposing.

As far as the souls of the brutes are concerned, M. Descartes elsewhere suggests clearly enough that they have none. All they have is a body which is constructed in a particular manner, made up of various organs in such a way that all the operations which we observe can be produced in it and by means of it.

But I fear that this view will not succeed in finding acceptance in people's minds unless it is supported by very solid arguments. For at first sight it seems incredible that it can come about, without the assistance of any soul, that the light reflected from the body of a wolf onto the eyes of a sheep should move the minute fibres of the optic nerves, and that on reaching the brain this motion should spread the animal spirits throughout the nerves in the manner necessary to precipitate the sheep's flight.

One point which I will add here is that I wholly agree with the distinguished author's doctrines concerning the distinction between the imagination and the intellect or thought, and the greater certainty which attaches to what we grasp by means of reason as against what we observe by means of the bodily senses. I long ago learned from Augustine, in Chapter 15 of *De Animae Quantitate*, that we must completely dismiss those who believe that what we see with the intellect is less certain than what we see with these bodily eyes, which have to contend with a perpetual discharge of phlegm. This leads Augustine to say in the *Soliloquies*, Book I, Chapter 4, that when doing geometry he found the senses to be like a ship. He goes on:

> For when they had brought me to the place I was aiming for, I sent them away, and, now that I had set foot on the shore, began to examine these matters using my thought alone. But for a long time my footsteps remained unsteady. Hence I think that a man can sooner sail on dry land than he can perceive geometrical matters through the senses, even though the senses do appear to give us some small assistance when we begin to learn.

[…]

Let me add something which I forgot to include earlier. The author lays it down as certain that there can be nothing in him, in so far as he is a thinking thing, of which he is not aware, but it seems to me that this is false. For by 'himself, in so far as he is a thinking thing', he means simply his mind, in so far as it is distinct from the body. But all of us can surely see that there may be many things in our mind of which the mind is not aware. The mind of an infant in its mother's womb has the power of thought, but is not aware of it. And there are countless similar examples, which I will pass over.

## [Descartes to Arnauld]

### REPLY TO PART ONE, DEALING WITH THE NATURE OF THE HUMAN MIND

I shall not waste time here by thanking my distinguished critic for bringing in the authority of St Augustine to support me, and for setting out my arguments so vigorously that he seems to fear that their strength may not be sufficiently apparent to anyone else.

But I will begin by pointing out where it was that I embarked on proving 'how, from the fact that I am aware of nothing else belonging to my essence (that is, the essence of the mind alone) apart from the fact that I am a thinking thing, it follows that nothing else does in fact belong to it'. The relevant passage is the one where I proved that God exists—a God who can bring about everything that I clearly and distinctly recognize as possible.

Now it may be that there is much within me of which I am not yet aware (for example, in this passage I was in fact supposing that I was not yet aware that the mind possessed the power of moving the body, or that it was substantially united to it). Yet since that of which I am aware is sufficient to enable me to subsist with it and it alone, I am certain that I could have been created by God without having these other attributes of which I am unaware, and hence that these other attributes do not belong to the essence of the mind.

For if something can exist without some attribute, then it seems to me that that attribute is not included in its essence. And although mind is part of the essence of man, being united to a human body is not strictly speaking part of the essence of mind.

I must also explain what I meant by saying that 'a real distinction cannot be inferred from the fact that one thing is conceived apart from another by an abstraction of the intellect which conceives the thing inadequately. It can be in-

ferred only if we understand one thing apart from another completely, or as a complete thing.'

I do not, as M. Arnauld assumes, think that adequate knowledge of a thing is required here. Indeed, the difference between complete and adequate knowledge is that if a piece of knowledge is to be *adequate* it must contain absolutely all the properties which are in the thing which is the object of knowledge. Hence only God can know that he has adequate knowledge of all things.

A created intellect, by contrast, though perhaps it may in fact possess adequate knowledge of many things, can never know it has such knowledge unless God grants it a special revelation of the fact. In order to have adequate knowledge of a thing all that is required is that the power of knowing possessed by the intellect is adequate for the thing in question, and this can easily occur. But in order for the intellect to know it has such knowledge, or that God put nothing in the thing beyond what it is aware of, its power of knowing would have to equal the infinite power of God, and this plainly could not happen on pain of contradiction.

Now in order for us to recognize a real distinction between two things it cannot be required that our knowledge of them be adequate if it is impossible for us to know that it is adequate. And since, as has just been explained, we can never know this, it follows that it is not necessary for our knowledge to be adequate.

Hence when I said that 'it does not suffice for a real distinction that one thing is understood apart from another by an abstraction of the intellect which conceives the thing inadequately', I did not think this would be taken to imply that *adequate* knowledge was required to establish a real distinction. All I meant was that we need the sort of knowledge that we have not ourselves made *inadequate* by an abstraction of the intellect.

There is a great difference between, on the one hand, some item of knowledge being wholly adequate, which we can never know with certainty to be the case unless it is revealed by God, and, on the other hand, its being adequate enough to enable us to perceive that we have not rendered it inadequate by an abstraction of the intellect.

In the same way, when I said that a thing must be understood *completely*, I did not mean that my understanding must be adequate, but merely that I must understand the thing well enough to know that my understanding is *complete*.

I thought I had made this clear from what I had said just before and just after the passage in question. For a little earlier I had distinguished between 'incomplete' and 'complete' entities, and I had said that for there to be a real distinction between a number of things, each of them must be understood as 'an entity in its own right which is different from everything else'.

And later on, after saying that I had 'a complete understanding of what a body is', I immediately added that I also 'understood the mind to be a complete thing'. The meaning of these two phrases was identical; that is, I took 'a complete understanding of something' and 'understanding something to be a complete thing' as having one and the same meaning.

But here you may justly ask what I mean by a 'complete thing', and how I prove that for establishing a real distinction it is sufficient that two things can be understood as 'complete' and that each one can be understood apart from the other.

My answer to the first question is that by a 'complete thing' I simply mean a substance endowed with the forms or attributes which enable me to recognize that it is a substance.

We do not have immediate knowledge of substances, as I have noted elsewhere. We know them only by perceiving certain forms or attributes which must inhere in something if they are to exist; and we call the thing in which they inhere a 'substance'.

But if we subsequently wanted to strip the substance of the attributes through which we know it, we would be destroying our entire knowledge of it. We might be able to apply various words to it, but we could not have a clear and distinct perception of what we meant by these words.

I am aware that certain substances are commonly called 'incomplete'. But if the reason for calling them incomplete is that they are unable to exist on their own, then I confess I find it self-contradictory that they should be substances, that is, things which subsist on their own, and at the same time incomplete, that is, not possessing the power to subsist on their own. It is also possible to call a substance incomplete in the sense that, although it has nothing incomplete about it *qua* substance, it is incomplete in so far as it is referred to some other substance in conjunction with which it forms something which is a unity in its own right.

Thus a hand is an incomplete substance when it is referred to the whole body of which it is a part; but it is a complete substance when it is considered on its own. And in just the same way the mind and the body are incomplete substances when they are referred to a human being which together they make up. But if they are considered on their own, they are complete.

For just as being extended and divisible and having shape etc. are forms or attributes by which I recognize the substance called *body*, so understanding, willing, doubting etc. are forms by which I recognize the substance which is called *mind*. And I understand a thinking substance to be just as much a complete thing as an extended substance.

It is quite impossible to assert, as my distinguished critic maintains, that 'body may be related to mind as a genus is related to a species'. For although a genus can be understood without this or that specific differentia, there is no way in which a species can be thought of without its genus.

For example, we can easily understand the genus 'figure' without thinking of a circle (though our understanding will not be distinct unless it is referred to some specific figure and it will not involve a complete thing unless it also comprises the nature of body). But we cannot understand any specific differentia of the 'circle' without at the same time thinking of the genus 'figure'.

Now the mind can be perceived distinctly and completely (that is, sufficiently for it to be considered as a complete thing) without any of the forms or attributes by which we recognize that body is a substance, as I think I showed quite adequately in the Second Meditation. And similarly a body can be understood distinctly and as a complete thing, without any of the attributes which belong to the mind.

But here my critic argues that although I can obtain some knowledge of myself without knowledge of the body, it does not follow that this knowledge is complete and adequate, so as to enable me to be certain that I am not mistaken in excluding body from my essence. He explains the point by using the example of a triangle inscribed in a semi-circle, which we can clearly and distinctly understand to be right-angled although we do not know, or may even deny, that the square on the hypotenuse is equal to the squares on the other sides. But we cannot infer from this that there could be a right-angled triangle such that the square on the hypotenuse is not equal to the squares on the other sides.

But this example differs in many respects from the case under discussion.

First of all, though a triangle can perhaps be taken concretely as a substance having a triangular shape, it is certain that the property of having the square on the hypotenuse equal to the squares on the other sides is not a substance. So neither the triangle nor the property can be understood as a complete thing in the way in which mind and body can be so understood; nor can either item be called a 'thing' in the sense in which I said 'it is enough that I can understand one thing (that is, a complete thing) apart from another' etc. This is clear from the passage which comes next: 'Besides I find in myself faculties' etc. I did not say that these faculties were *things*, but carefully distinguished them from things or substances.

Secondly, although we can clearly and distinctly understand that a triangle in a semi-circle is right-angled without being aware that the square on the hypotenuse is equal to the squares on the other two sides, we cannot have a clear understanding of a triangle having the square on its hypotenuse equal to the squares on the other sides without at the same time being aware that it is right-angled. And yet we can clearly and distinctly perceive the mind without the body and the body without the mind.

Thirdly, although it is possible to have a concept of a triangle inscribed in a semi-circle which does not include the fact that the square on the hypotenuse is equal to the squares on the other sides, it is not possible to have a concept of the triangle such that no ratio at all is understood to hold between the square on the hypotenuse and the squares on the other sides. Hence, though we may be unaware of what that ratio is, we cannot say that any given ratio does not hold unless we clearly understand that it does not belong to the triangle; and where the ratio is one of equality, this can never be understood. Yet the concept of body includes nothing at all which belongs to the mind, and the concept of mind includes nothing at all which belongs to the body.

So although I said 'it is enough that I can clearly and distinctly understand one thing apart from another' etc., one cannot go on to argue 'yet I clearly and distinctly understand that this triangle is right-angled without understanding that the square on the hypotenuse' etc. There are three reasons for this. First, the ratio between the square on the hypotenuse and the squares on the other sides is not a complete thing. Secondly, we do not clearly understand the ratio to be equal except in the case of a right-angled triangle. And thirdly, there is no way in which the triangle can be distinctly understood if the ratio which obtains between the square on the hypotenuse and the squares on the other sides is said not to hold.

But now I must explain how the mere fact that I can clearly and distinctly understand one substance apart from another is enough to make me certain that one excludes the other.

The answer is that the notion of a *substance* is just this—that it can exist by itself, that is without the aid of any other substance. And there is no one who has ever perceived two substances by means of two different concepts without judging that they are really distinct.

Hence, had I not been looking for greater than ordinary certainty, I should have been content to have shown in the Second Meditation that the mind can be understood as a subsisting thing despite the fact that nothing belonging to the body is attributed to it, and that, conversely, the body can be understood as a subsisting thing despite the fact that nothing belonging to the mind is attributed to it. I should have added nothing more in order to demonstrate that there is a real distinction between the mind and the body, since we commonly judge that the order in which things are mutually related in our perception of them corresponds to the order in which they are related in actual reality. But one of the exaggerated doubts which I put forward in the First Meditation went so far as to make it impossible for me to be certain of this very point (namely whether things do in reality correspond to our perception of them), so long as I was supposing myself to be ignorant of the author of my being. And this is why everything I wrote on the subject of God and truth in the Third, Fourth and Fifth Meditations contributes to the conclusion that there is a real distinction between the mind and the body, which I finally established in the Sixth Meditation.

And yet, says M. Arnauld, 'I have a clear understanding of a triangle inscribed in a semi-circle without knowing that the square on the hypotenuse is equal to the squares on the other sides.' It is true that the triangle is intelligible even though we do not think of the ratio which obtains between the square on the hypotenuse and the squares on the other sides; but it is not intelligible that this ratio should be denied of the triangle. In the case of the mind, by contrast, not only do we understand it to exist without the body, but, what is more, all the attributes which belong to a body can be denied of it. For it is of the nature of substances that they should mutually exclude one another.

M. Arnauld goes on to say: 'Since I infer my existence from the fact that I am thinking, it is certainly no surprise if the idea that I form in this way represents me simply as a thinking thing.' But this is no objection to my argument. For it is equally true that when I examine the nature of the body, I find nothing at all in it which savours of thought. And we can have no better evidence for a distinction between two things than the fact that if we examine either of them, whatever we find in one is different from what we find in the other.

Nor do I see why this argument 'proves too much'. For the fact that one thing can be separated from another by the power of God is the very least that can be asserted in order to establish that there is a real distinction between the two. Also, I thought I was very careful to guard against anyone inferring from this that man was simply 'a soul which makes use of a body'. For in the Sixth Meditation, where I dealt with the distinction between the mind and the body, I also proved at the same time that the mind is substantially united with the body. And the arguments which I used to prove this are as strong as any I can remember ever having read. Now someone who says that a man's arm is a substance

that is really distinct from the rest of his body does not thereby deny that the arm belongs to the nature of the whole man. And saying that the arm belongs to the nature of the whole man does not give rise to the suspicion that it cannot subsist in its own right. In the same way, I do not think I proved too much in showing that the mind can exist apart from the body. Nor do I think I proved too little in saying that the mind is substantially united with the body, since that substantial union does not prevent our having a clear and distinct concept of the mind on its own, as a complete thing. The concept is thus very different from that of a surface or a line, which cannot be understood as complete things unless we attribute to them not just length and breadth but also depth.

Finally the fact that 'the power of thought is dormant in infants and extinguished in madmen' (I should say not 'extinguished' but 'disturbed'), does not show that we should regard it as so attached to bodily organs that it cannot exist without them. The fact that thought is often impeded by bodily organs, as we know from our own frequent experience, does not at all entail that it is produced by those organs. This latter view is one for which not even the slightest proof can be adduced.

I must admit, however, that the fact that the mind is closely conjoined with the body, which we experience constantly through our senses, does result in our not being aware of the real distinction between mind and body unless we attentively meditate on the subject. But I think that those who repeatedly ponder on what I wrote in the Second Meditation will be easily convinced that the mind is distinct from the body, and distinct not just by a fiction or abstraction of the intellect: it can be known as a distinct thing because it is in reality distinct.

I will not answer my critic's further observations regarding the immortality of the soul, because they do not conflict with my views. As far as the souls of the brutes are concerned, this is not the place to examine the subject, and, short of giving an account of the whole of physics, I cannot add to the explanatory remarks I made in Part 5 of the *Discourse on the Method*. But to avoid passing over the topic in silence, I will say that I think the most important point is that, both in our bodies and those of the brutes, no movements can occur without the presence of all the organs or instruments which would enable the same movements to be produced in a machine. So even in our own case the mind does not directly move the external limbs, but simply controls the animal spirits which flow from the heart via the brain into the muscles, and sets up certain motions in them; for the spirits are by their nature adapted with equal facility to a great variety of actions. Now a very large number of the motions occurring inside us do not depend in any way on the mind. These include heartbeat, digestion, nutrition, respiration when we are asleep, and also such waking actions as walking, singing and the like, when these occur without the mind attending to them. When people take a fall, and stick out their hands so as to protect their head, it is not reason that instructs them to do this; it is simply that the sight of the impending fall reaches the brain and sends the animal spirits into the nerves in the manner necessary to produce this movement even without any mental volition, just as it would be produced in a machine. And since our own experience reliably informs us that this is so, why should we be so amazed that the 'light reflected from the body of a wolf onto the eyes of a sheep' should equally be capable of arousing the movements of flight in the sheep?

But if we wish to determine by the use of reason whether any of the movements of the brutes are similar to those which are performed in us with the help of the mind, or whether they resemble those which depend merely on the flow of the animal spirits and the disposition of the organs, then we should consider the differences that can be found between men and beasts. I mean the differences which I set out in Part 5 of the *Discourse on the Method*, for I think these are the only differences to be found. If we do this, it will readily be apparent that all the actions of the brutes resemble only those which occur in us without any assistance from the mind. And we shall be forced to conclude from this that we know of absolutely no principle of movement in animals apart from the disposition of their organs and the continual flow of the spirits which are produced by the heat of the heart as it rarefies the blood. We shall also see that there was no excuse for our imagining that any other principle of motion was to be found in the brutes. We made this mistake because we failed to distinguish the two principles of motion just described; and on seeing that the principle depending solely on the animal spirits and organs exists in the brutes just as it does in us, we jumped to the conclusion that the other principle, which consists in mind or thought, also exists in them. Things which we have become convinced of since our earliest years, even though they have subsequently been shown by rational arguments to be false, cannot easily be eradicated from our beliefs unless we give the relevant arguments our long and frequent attention.

[…]

As to the fact that there can be nothing in the mind, in so far as it is a thinking thing, of which it is not aware, this seems to me to be self-evident. For there is nothing that we can understand to be in the mind, regarded in this way, that is not a thought or dependent on a thought. If it were not a thought or dependent on a thought it would not belong to the mind qua thinking thing; and we cannot have any thought of which we are not aware at the very moment when it is in us. In view of this I do not doubt that the mind begins to think as soon as it is implanted in the body of an infant, and that it is immediately aware of its thoughts, even though it does not remember this afterwards because the impressions of these thoughts do not remain in the memory.

But it must be noted that, although we are always actually aware of the acts or operations of our minds, we are not always aware of the mind's faculties or powers, except potentially. By this I mean that when we concentrate on employing one of our faculties, then immediately, if the faculty in question resides in our mind, we become actually aware of it, and hence we may deny that it is in the mind if we are not capable of becoming aware of it.

## GASSENDI

*On the Sixth Meditation: 'The existence of material things and the real distinction between mind and body'*

1. I have no objection to what you say at the beginning of the Sixth Meditation, namely that material things 'are capable of existing in so far as they are the subject-matter of pure mathematics'. In fact, however, material things are the subject-matter of applied, not pure, mathematics, and the subject-matter of pure mathematics—including the point, the line, the surface, and the indivisible figures which are composed of these elements and yet remain indivisible—cannot exist in reality. The only point that gave me pause is that here again you distinguish between imagining and understanding. But surely, O Mind, these two appear to be acts of one and the same faculty, as we have suggested above, and if there is a distinction between them it seems to be no more than one of degree. Notice that this can now be proved from what you say.

You said previously that 'imagining is simply contemplating the shape or image of a corporeal thing'. But in the present passage you do not deny that understanding consists of contemplating triangles, pentagons, chiliagons, myriagons and so on; and these are shapes of corporeal things. You now set up your distinction. Imagination, you say, involves the application of the cognitive faculty to a body, but understanding does not require this kind of application or effort. And hence, when without any effort you perceive a triangle as a figure consisting of three angles, you say that you 'understand' it; but when, not without some effort on your part, you make the figure become, as it were, present before you, contemplate and examine it, and discern the three angles distinctly and in detail, then you say you 'imagine' it. Thus you perceive without effort that a chiliagon is a figure with a thousand angles, but you cannot by any mental application or effort discern them or make them become, as it were, present before you, or see them all in detail. You are in a confused state, just as you are when dealing with a myriagon or any other figure of this sort; and hence you think that in the case of the chiliagon or myriagon you have understanding, not imagination.

But for all that, there is nothing to prevent your extending your imagination, as well as your understanding, to the chiliagon, just as you do to the triangle. For you do make an effort to get some sort of picture of this figure with all its many angles, even though the number of angles is so large that you cannot grasp it distinctly. In any case, although you perceive that the word 'chiliagon' signifies a figure with a thousand angles, that is just the meaning of the term, and it does not follow that you *understand* the thousand angles of the figure any better than you *imagine* them.

Note, moreover, that the loss of distinctness and the onset of confusedness is gradual. You will perceive—imagine or understand—a quadrilateral more confusedly than a triangle but more distinctly than a pentagon; and you will perceive the pentagon more confusedly than a quadrilateral and more distinctly than a hexagon; and so on, until you reach the point where you have nothing you can explicitly visualize. And because you can no longer grasp the figure explicitly, you do not bother to make a supreme mental effort.

Hence if you want to say that you are simultaneously 'imagining and understanding' a figure when you are aware of it distinctly and with some discernible effort, whereas you are merely 'understanding' it when you see it only confusedly and with little or no effort, then I am prepared to allow this usage. But it will not follow that you have the basis for setting up more than one type of internal cognition, since it is purely a contingent matter, and a question of degree, whether you contemplate any given figure distinctly or confusedly, and with or without a concentrated effort. At any rate, when we wish to run through all the figures from a heptagon or octagon right up to a chiliagon, and attend all the time to the greater or lesser degree of distinctness or concentration involved, we shall surely not be able to say at what point, or with what figure, our imagination stops, leaving us with understanding alone. What we shall find, surely, is that there is a progressive scale of awareness such that the distinctness and effort involved continuously and imperceptibly decreases, while the confusion and slackening of effort increases. In any case, you must bear in mind that you are belittling the understanding while extolling the imagination. Do you not invite us to scorn the former and commend the latter when you attribute slackness and confusion to the one and diligence and clarity of vision to the other?

You assert later on that the power of imagining, in so far as it is distinct from the power of understanding, is not a necessary constituent of your essence. But how can that be if they are one and the same power, and the difference in functioning is merely one of degree?

You add that when the mind imagines, it turns towards the body, but when it understands, it turns towards itself and to the ideas it has within it. But what if the mind cannot turn to itself or to one of its ideas without simultaneously turning to something corporeal or something represented by a corporeal idea? For triangles, pentagons, chiliagons, myriagons, and the other figures, or their ideas, are wholly corporeal; and when it understands, the mind cannot attend to them except as corporeal or quasi-corporeal objects. As for the ideas of allegedly immaterial things, such as those of God and an angel and the human soul or mind, it is clear that even the ideas we have of these things are corporeal or quasi-corporeal, since (as previously mentioned) the ideas are derived from the human form and from other things which are very rarefied and simple and very hard to perceive with the senses, such as air or ether. When you say that your conjecture that some body exists is only probable, you cannot mean this seriously, and so it need not hold us up.

2. You next discuss the senses, and first of all you make a splendid survey of the things you had previously become aware of via the senses and believed to be true with nature alone as your judge and guide. You next relate the experiences which so shook the faith you had in the senses as to make you retreat to the position we saw you take up in the First Meditation.

I have no intention of starting an argument here about the truthfulness of the senses. For although there is deception or falsity, it is not to be found in the senses; for the senses are quite passive and report only appearances, which must appear in the way they do owing to their causes. The error or falsity is in the judgement or the mind, which is not circumspect enough and does not notice that things at a distance will for one reason or another appear smaller and more blurred than when they are nearby, and so on. Nevertheless, when deception occurs, we must not deny that it exists; the only difficulty is whether it occurs all the time, thus making it impossible for us ever to be sure of the truth of anything which we perceive by the senses.

It is quite unnecessary to look for obvious examples here. With regard to the cases you mention, or rather put forward as presenting a problem, I will simply say that it seems to be quite uncontroversial that when we look at a tower from nearby, and touch it, we are sure that it is square, even though when we were further off we had occasion to judge it to be round, or at any rate to doubt whether it was square or round or some other shape.

Similarly the feeling of pain which still appears to occur in the foot or hand after these limbs have been amputated may sometimes give rise to deception, because the spirits responsible for sensation have been accustomed to pass into the limbs and produce a sensation in them. But such deception occurs, of course, in people who have suffered amputation; those whose bodies are intact are so certain that they feel pain in the foot or hand when they see it is pricked, that they cannot be in doubt. Again, since during our lives we are alternately awake or dreaming, a dream may give rise to deception because things may appear to be present when they are not in fact present. But we do not dream all the time, and for as long as we are really awake we cannot doubt whether we are awake or dreaming.

Thus, although we can think that our nature makes us liable to be deceived even in cases where the truth seems utterly certain, we can nonetheless think that we have a natural capacity for arriving at the truth. We are sometimes deceived when we do not detect a sophism or when a stick is partially immersed in water; but equally, we sometimes have an understanding of the truth, as in the case of a geometrical demonstration or when the stick is taken out of the water, and in neither of these cases can there be any doubt at all about the truth. And even in the other cases where doubt is permissible, at least we may not doubt that things appear to us in such and such a way: it cannot but be wholly true that they appear as they do.

Reason may indeed persuade us not to accept much of what nature impels us to believe, but at least it cannot take away the truth of the appearances or the 'phenomena'. There is no need, however, to discuss here the question of whether the opposition between reason and sensory impulses is simply analogous to the right hand's holding up the left when it is dropping from tiredness, or whether some other analogy is appropriate.

3. You next come to the task you have set yourself, but in a way which looks like petty skirmishing. You say: 'But now, when I am beginning to achieve a better knowledge of myself and the author of my being, although I do not think I should heedlessly accept everything I seem to have acquired from the senses, neither do I think that everything should be called into doubt.' This is quite right, though undoubtedly you must have thought this before.

The next passage is as follows:

> First, I know that everything that I clearly and distinctly understand is capable of being created by God so as to correspond exactly with my understanding of it. Hence the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct, since they are capable of being separated, at least by God. The question of what kind of power is required to bring about such a separation does not affect the judgement that the two things are distinct.

The point that must be made about this is that you are using something which is obscure to prove something which is clear (though I do not suggest that the inference itself contains any obscurity). I will not complain that you should previously have proved the existence of God and the extent of his power in order to show that he is capable of bringing about whatever you are capable of understanding. I should like to ask only about the property of the triangle—that its longest side subtends the greatest angle: do you understand this property of the triangle separately from its other property of having its three angles equal to two right angles? And do you therefore admit that God could separate the former property from the latter and isolate it, enabling the triangle to have one property and not the other, or enabling the property to exist apart from the triangle?

But I shall not detain you any further on this point, since the separation in question is of little relevance. You go on as follows: 'Thus, simply by knowing I exist and seeing at the same time that absolutely nothing else belongs to my nature or essence except that I am a thinking thing, I can infer correctly that my essence consists solely in the fact that I am a thinking thing.' Here I ought to detain you, but it is enough to repeat what I said in connection with the Second Meditation. Alternatively, let us wait and see what inference you intend to draw.

Here it is:

> It is true that I may have (or, to anticipate, that I certainly have) a body that is very closely joined to me. But, nevertheless, on the one hand, I have a clear and distinct idea of myself, in so far as I am simply a thinking, non-extended thing, and, on the other hand, I have a distinct idea of body, in so far as it is simply an extended, non-thinking thing. And accordingly, it is certain that I am really distinct from my body and can exist without it.

This, then, was the result you were aiming for. And therefore, since the crux of the problem lies here, we must stop for a while to see how you manage to establish this conclusion. The principal point concerns the distinction between you and *body*. What body do you mean? Obviously this solid body composed of limbs which you undoubtedly refer to when you say 'I have a body which is joined to me' and 'It is certain that I am distinct from my body' etc.

And yet, O Mind, there is no difficulty about this body. There would be a problem if I were to follow the majority of philosophers and object that you are an *entelechy*, perfection, actuality, form, appearance, or, in common speech, 'mode', of the body. Such philosophers do not acknowledge that you are any more distinct or separable from this body than a shape or other mode is separable from it; and this point holds whether you are the entire soul or else some additional νοῦς δυνάμει (the so-called 'potential intellect') or νοῦς παθητικός (the 'passive intellect'). But I would like to be more generous and consider you as the νοῦς ποιητικός or 'active intellect', and indeed to regard you as χωριστός or 'separable', albeit in another sense than the usual one.

The philosophers I have just referred to regarded the active intellect as common to all men (if not to all things) and as enabling the passive intellect to understand in exactly the same way—and with exactly the same necessity—as that in which light enables the eye to see (hence they frequently compared it with the light from the sun and regarded it as coming from outside). But I shall consider you instead (and you will be quite happy with this) as a specific sort of intellect exercising control in the body.

Now the difficulty, to repeat, is not about whether or not you are separable from this body (and this is why I suggested above that you had no need to have recourse to God's power in order to establish that things which you understand apart from each other are separate). Rather, the difficulty concerns the body which you yourself are—for you may be a rarefied body infused into this solid one or occupying some part of it. At all events you have not yet convinced us that you are something wholly incorporeal. And although in the Second Meditation you declared that you are not a wind, fire, air or breath, I did warn you that you had asserted this without any proof.

You said there that you were not arguing about these things at that stage; but you never went on to discuss them, and you never gave any sort of proof that you are not a body of this sort. I had hoped that you would now offer one; but what discussion and proof you do offer simply establishes that you are not this solid body, and, as I have just said, there is no difficulty about this.

4. 'But', you say, 'on the one hand I have a clear and distinct idea of myself, in so far as I am simply a thinking, non-extended thing; and on the other hand I have a distinct idea of body, in so far as it is simply an extended, non-thinking thing.' Now as far as the idea of body is concerned, it does not seem that it ought to cause us too much trouble. If you are talking of the idea of body in the general sense, then we must repeat our objection that you still have to prove that being capable of thought is inconsistent with the nature of body. For you would be begging the question, if you set up the inquiry as to whether you are a rarefied body in such a way as to presuppose that thought and body are incompatible.

But your claim undoubtedly concerns merely this solid body from which you maintain you are distinct and separable. And thus I do not so much dispute that you have an idea of this body as insist that you could not have such an idea if you were really an unextended thing. For how, may I ask, do you think that you, an unextended subject, could receive the semblance or idea of a body that is extended? If such a semblance comes from a body then it is undoubtedly corporeal, and has a number of parts or layers, and so is extended. If it is imprinted in you from some other source, since it must still represent an extended body, it must still have parts and hence be extended. For if it lacks parts, how will it manage to represent parts? If it lacks extension, how will it represent an extended thing? If it lacks shape, how will it represent a thing that has a shape? If it has no position, how will it represent a thing which has upper and lower parts, parts on the right and parts on the left, and parts in the middle? If it lacks all variation, how will it represent various colours and so on? It seems, then, that the idea does not wholly lack extension. Yet if it is extended, how can you, if you are unextended, have become its subject? How will you adapt it to yourself or make use of it? And how will you gradually experience its fading and disappearing?

As far as your idea of yourself is concerned, there is nothing to add to what I have already said, especially regarding the Second Meditation. For what emerges there is that, far from having a clear and distinct idea of yourself you have no idea of yourself at all. This is because although you recognize that you are thinking, you still do not know what kind of thing you, who are thinking, are. And since it is only this operation that you are aware of, the most important element is still hidden from you, namely the substance which performs this operation. This leads me to suggest that you may be compared to a blind man who, on feeling heat and being told that it comes from the sun, thinks he has a clear and distinct idea of the sun in that, if anyone asks him what the sun is, he can reply: 'It is a heating thing.'

But I should add that you say not only that you are a thinking thing but also that you are a thing which is unextended. I shall ignore the fact that this is asserted without proof, even though it is still in question, and simply ask you first of all: do you therefore have a clear and distinct idea of yourself? You say that you are not extended; that is, you say what you are not, not what you are. In order to have a clear and distinct, or, what is the same thing, a true and authentic idea of something, is it not necessary to know the thing positively and, so to speak, affirmatively? Or is it enough to know that it is not some other thing? Would someone have a clear and distinct idea of Bucephalus if he simply knew that he was not a fly?

But I will not press this point, but ask you this instead. You say you are a thing which is not extended; but are you not diffused throughout the body? I have no idea what reply you will give, for although from the start I gathered that you were in the brain, this was something I arrived at by conjecture rather than by simply following your views. The source of my conjecture was a later passage, where you say that you are 'not affected by all parts of the body but only by the brain, or only by one small part of it'. But I was not at all certain whether this meant that you were in fact present only in the brain (or a part of it); for you might be present throughout the body but affected only in one part of it—just as we commonly say that the soul is diffused throughout the whole body but sees only in the eye.

A similar doubt was raised by the phrase 'although the whole mind seems to be united to the whole body'. For in this passage you do not actually assert that you are united to the whole body, but neither do you deny it. Whatever your view is, let me, if I may, assume to begin with that you are diffused throughout the entire body. Now whether you are identical with one soul or something different from it, my question is this: are you really unextended, given that you stretch from head to foot, are coextensive with the body and have parts corresponding to all its parts? Will you reply that you are unextended because you are wholly in the whole body and wholly in every part of it? But if this is your view, what, may I ask, do you mean by it? Can one thing exist simultaneously and in its entirety in several places? Our faith tells us this is true in the case of the sacred mystery of the Eucharist. But the discussion here concerns you, as a natural object, and is being conducted in accordance with the natural light. Is it really permissible to understand there to be several different places simultaneously occupied by no more than one object? And is not a hundred more than one? Again, if a thing is wholly in one place, can it also be in other places unless it is itself outside itself just as one place is outside another? Whatever you say, it will remain obscure and uncertain whether you are entirely present in any given part, or else present in each part by means of your various parts. What is much clearer is that nothing can exist simultaneously and in its entirety in several places; and hence it will turn out to be even more evident that you are not wholly in all the individual parts but wholly in the whole body. This means that you are diffused throughout the body by means of your parts, and thus have extension.

Let us now assume instead that you are in the brain alone, or simply in a small part of it. You will see that the same awkwardness arises. For however small the part in question is, it is still extended, and since you are coextensive

with it, you too are therefore extended and have particular parts corresponding to its parts. Will you say that you take the relevant part of the brain to be a point? This is surely incredible; but let it be a point. If it is a physical point, the difficulty still stands, since such a point is extended and does not wholly lack parts. If it is a mathematical point, then such a point, as you are aware, is purely imaginary. But let us grant this imaginary point, or rather let us pretend that there is in the brain a mathematical point to which you are joined and in which you exist. Look what a useless fiction this will turn out to be. For if we adopt it, we shall have to imagine that you exist at the conjunction of the nerves by means of which all the regions informed by the soul transmit to the brain the ideas or images of the things perceived by the senses. But, first, all the nerves do not meet at one point: for one thing the brain joins up with the spinal column, and many nerves from all over the back terminate there; and, for another thing, the nerves which do go into the middle of the head are not found to terminate in the same part of the brain. But even if we grant that all the nerves do meet, they cannot meet at a mathematical point, since they are corporeal things, not mathematical lines, and so cannot come together at a mathematical point. And even if we grant that they do come together, the spirits which pass through the nerves cannot enter or leave the nerves since they are bodies and a body cannot exist in a non-place or pass through a non-place (which is what a mathematical point is). And even if we grant that they can exist in and pass through a non-place, if you exist in a point which has no right-hand or left-hand or upper or lower regions etc., you cannot possibly judge where the spirits come from or what messages they bring.

The same problem, I maintain, arises concerning the spirits which you must transmit in order to communicate feelings or instructions, or to initiate movement. I will pass over the fact that we cannot grasp how, if you exist in a point, you can set up motions in the spirits without being a body or having a body that would allow you to be in contact with them and make them move. If you say they move by themselves and you merely direct their movements, remember that you elsewhere denied that a body can move by itself, which implies that you are the cause of the movement. Then you must explain to us how this 'directing' of movement can occur without some effort—and therefore motion—on your part. How can there be effort directed against anything, or motion set up in it, unless there is mutual contact between what moves and what is moved? And how can there be contact without a body when, as is transparently clear by the natural light, 'naught apart from body, can touch or yet be touched'.

But why should I spend any more time on this when the onus is on you to prove that you are an unextended and hence incorporeal thing? You will hardly, I think, support your claim by pointing out that man is commonly said to consist of a body and a rational soul—as if it followed from the fact that one part is said to be a body that we must not call the other part a body. If you did take this line, you would give us the chance to make a distinction and say that man consists of two kinds of body, a solid one and a rarefied one, the common name 'body' being retained by the former, while the latter is called the 'soul'. I will pass over the fact that the same could then be said of the other animals to whom you are not prepared to grant a mind like your own; they would then be lucky indeed, since on your account they would at least have a soul! So when you conclude that it is certain that you are really distinct from your body, you see that I will grant you this conclusion, but will not therefore grant that you are incorporeal, as opposed to being a kind of very rarefied body distinct from your more solid body.

You add that hence you 'can exist apart from the body'. But once we have granted you that you can exist without your solid body—just as the vapour with its distinctive smell can exist when it passes out of the apple and is dispersed into the atmosphere—what will you have gained? Well, you will certainly have established more than is intended by those philosophers we mentioned who consider that you will wholly perish when you die; for on their view you are like a shape which, if the surface is altered, disappears in such a way as to become nothing at all. Indeed, supposing you are some corporeal or tenuous substance, you would not be said to vanish wholly at your death or to pass into nothingness; you would be said to subsist by means of your dispersed parts. We would, however, have to say that, because of this dispersal, you would not continue to think, or be a thinking thing, a mind or a soul. In raising all these objections I am, as always, not casting doubt on the conclusion you are trying to prove; I am simply unhappy about the force of the argument you have presented.

5. In the course of your discussion you go on to mention several points relevant to your thesis, and I will not stop to deal with all of them. One passage that strikes me is this:

> Nature teaches me by these sensations of pain, hunger, thirst and so on, that I am not merely present in my body as a sailor is present in a ship, but that I am very closely joined and, as it were, intermingled with it, so that I and the body form a unit. If this were not so, I, who am nothing but a thinking thing, would not feel pain when the body was hurt, but would perceive the damage purely by the intellect, just as a sailor perceives by sight if anything in his ship is broken. Similarly, when the body needed food or drink, I should have an explicit understanding of the fact, instead of having confused sensations of hunger and thirst. For these sensations of hunger, thirst, pain and so on are nothing but confused modes of thinking which arise from the union and, as it were, intermingling of the mind with the body.

All this is quite right, but you still have to explain how that 'joining and, as it were, intermingling' or 'confusion' can apply to you if you are incorporeal, unextended and indivisible. If you are no larger than a point, how are you joined to the entire body, which is so large? How can you be joined even to the brain, or a tiny part of it, since (as noted above) no matter how small it is, it still has size or extension? If you wholly lack parts, how are you intermingled or 'as it were intermingled', with the particles of this region? For there can be no intermingling between things unless the parts of each of them can be intermingled. And if you are something separate, how are you compounded with matter so as to make up a unity? Moreover, since all compounding, conjunction or union takes place between the component parts, must there not be some relationship between these parts? Yet what relationship can possibly be understood to exist between corporeal and incorporeal parts? Can we grasp how stone and air are compressed together, e.g. in a pumice stone, so as to make a genuine compound? Yet there is a much closer relationship between a stone and air, which is also a body, than there is between the body and a soul, or wholly incorporeal mind. Again, must not every union occur by means of close contact? And, as I asked before, how can contact occur without a body? How can something corporeal take hold of something incorporeal so as to keep it joined to itself? And how can the incorpo-

real grasp the corporeal to keep it reciprocally bound to itself, if it has nothing at all to enable it to grasp or be grasped?

Hence, since you admit that you feel pain, how, may I ask, do you think you are capable of having this sensation if you are incorporeal and unextended? Pain involves being acted upon and cannot be understood as occurring except as a result of something pushing in and separating the components and thus interfering with their continuity. The state of pain is an unnatural state, but if something is by its nature homogeneous, simple, indivisible and immutable, how can it get into an unnatural state or be acted upon unnaturally? Again, since pain either is an alteration, or involves an alteration, how can something be altered if it has no more parts than a point, and hence cannot change or alter its nature without being reduced to nothing? I may add that pain comes from the foot and the arm and other regions at the same time, and hence surely you would have to have various parts enabling you to receive pain in various ways if you are not to have a confused sensation which seems to come from only one part. In a word, the general difficulty still remains of how the corporeal can communicate with the incorporeal and of what relationship may be established between the two.

### *Objections raised against the Sixth Meditation*

[Descartes to Gassendi]

1. I have already dealt with your denial of the statement that material things exist in so far as they are the subject-matter of pure mathematics.

It is false that our understanding of a chiliagon is confused; for many properties can be very clearly and very distinctly demonstrated of it, which could certainly not happen if we perceived it only in a confused manner, or—as you claim—only in a verbal way. In fact we have a clear understanding of the whole figure, even though we cannot imagine it in its entirety all at once. And it is clear from this that the powers of understanding and imagining do not differ merely in degree but are two quite different kinds of mental operation. For in understanding the mind employs only itself, while in imagination it contemplates a corporeal form. And although geometrical figures are wholly corporeal, this does not entail that the ideas by means of which we understand them should be thought of as corporeal (unless they fall under the imagination).

Lastly you say that the ideas of God, an angel and the human mind are 'corporeal or quasi-corporeal, since they are derived from the human form and from other things which are very rarefied and simple and hard to perceive with the senses, such as air or ether'. This is a thought which is worthy of you alone, O Flesh. For if anyone thus represents God, or the mind, to himself he is attempting to imagine something which is not imaginable, and all he will succeed in forming is a corporeal idea to which he falsely assigns the name 'God' or 'the mind'. A true idea of the mind contains only thought and its attributes, none of which is corporeal.

2. Here you show quite clearly that you are relying entirely on a preconceived opinion which you have never got rid of. You maintain that we never suspect any falsity in situations where we have never detected it, and hence that when we look at a tower from nearby and touch it we are sure that it is square, if it appears square. You also maintain that when we are really awake, we cannot doubt whether we are awake or asleep, and so on. But you have no reason to think that you have previously noticed all the circumstances in which error can occur; moreover, it is easy to prove that you are from time to time mistaken in matters which you accept as certain. But when you come round to saying that 'at least we may not doubt that things appear as they do', you are back on the right road: I made this very assertion in the Second Meditation. But the point at issue in the present context concerned the truth about the things located outside us, and you have not managed to say anything true about this.

3. I shall not stop to deal with your tedious and repetitious assertions here, e.g. that I did not prove various truths when in fact I demonstrated them, or that I discussed only this solid body, when in fact I dealt with every kind of body—even the most rarefied kind. What counter, other than a flat denial, should one offer to assertions of this kind, which are not supported by any argument? But I should like to know in passing what evidence you have to establish that I dealt with this solid body rather than rarefied ones. Was it that I said 'I have a body which is joined to me', and 'it is certain that I am distinct from my body'? I do not see why these words should not apply equally to a rarefied as to a solid body, and I do not think anyone but you will fail to see this. In any case, in the Second Meditation I did show that the mind can be understood as an existing substance even though we understand that nothing exists such as a wind or fire or vapour or breath or any other body, however thin and rarefied. But whether this substance was in actual fact distinct from any body whatsoever is something that I said I was not arguing about at that point; I discussed and demonstrated this claim in the Sixth Meditation. But you show that you have completely failed to understand any of this, since you confuse the question of what we may understand this substance to be with the question of what it really is.

4. Here you ask how I think that I, an unextended subject, could receive the semblance or idea of a body that is extended. I answer that the mind does not receive any corporeal semblance; the pure understanding both of corporeal and incorporeal things occurs without any corporeal semblance. In the case of imagination, however, which can have only corporeal things as its object, we do indeed require a semblance which is a real body: the mind applies itself to this semblance but does not receive it.

Your point about the idea of the sun, which a man born blind derives merely from its heat, is easily refuted. The blind man can have a clear and distinct idea of the sun as a thing that gives heat, even though he does not have an idea of it as a thing that gives light. Your comparison between me and the blind man is incorrect. First, our knowledge of a thinking thing is much more extensive than the blind man's knowledge of a 'heating thing'—indeed it is much more extensive than our knowledge of anything else, as I showed in the appropriate place. Secondly, the only people who can prove that the idea of the sun formed by the blind man does not contain everything that can be perceived of the sun are those who are endowed with sight and detect in addition its light and shape. You, by contrast, so far from knowing more of the mind than I do, are not even aware of the one thing that I do know; so in this respect you are more like the blind man, whereas I, and all the rest of the human race, can at least be said to have one good eye.

When I added that the mind is not extended, I did not intend to explain what the mind is, but merely to point out that those who think it is extended are in error. In the same way, if anyone asserted that Bucephalus was Music, there would be every point in someone else saying that this was false. You go on to try to prove that the mind is extended on the grounds that it makes use of a body that is extended; but here your argument seems no better than if you were to infer that Bucephalus is Music on the grounds that he neighs and whinnies, thus producing sounds which have some relation to music. Even though the mind is united to the whole body, it does not follow that it is extended throughout the body, since it is not in its nature to be extended, but only to think. Nor does it understand extension by means of an extended semblance which is present within it (although it does *imagine* extension by turning to a corporeal semblance which is extended, as I have explained). Finally, it is not necessary for the mind itself to be a body, although it has the power of moving the body.

5. Your comments on the union of the mind with the body are similar to what you have said earlier. At no point do you produce objections to my arguments; you merely put forward doubts that you think follow from my conclusions, though in fact they merely arise from your desire to call in the imagination to examine matters which are not within its proper province. Thus when you try to compare the intermingling of mind and body with the intermingling of two bodies, it is enough for me to reply that we should not set up any comparison between such things, because they are quite different in kind; and we should not imagine that the mind has parts on the grounds that it has an understanding of parts in the body. How do you arrive at the conclusion that everything the mind understands must be in the mind? If this were so, then, since the mind has an understanding of the magnitude of the terrestrial globe, it would surely have to possess this magnitude within itself, and hence not just be extended but have a greater extension than the earth.

[…]

But at the end my critics add a thought which, as far as I know, the author of the *Counter-Objections* [Gassendi] has not included in his book, although it is very similar to his objections. They say that many people of great intelligence think they clearly see that mathematical extension, which I lay down as the fundamental principle of my physics, is nothing other than my thought, and hence that it does not and cannot have any subsistence outside my mind, being merely an abstraction which I form from physical bodies. And they conclude that the whole of my physics 'must be imaginary and fictitious, as indeed the whole of pure mathematics is, whereas real physics dealing with the things created by God requires the kind of matter that is real, solid and not imaginary'. Here is the objection of objections and the epitome of the entire doctrine held by those 'people of great intelligence' who are cited here. All the things that we can understand and conceive are, on their account, only imaginings and fictions of our mind which cannot have any subsistence. And it follows from this that nothing that we can in any way understand, conceive, or imagine should be accepted as true; in other words we must entirely close the door to reason and content ourselves with being monkeys or parrots rather than men, if we are to deserve a place among these great minds. For if the things we can conceive must be regarded as false merely because we can conceive them, all that is left is for us to be obliged to accept as true only things which we do not conceive. We shall have to construct our doctrines out of these things, imitating others without knowing why, like monkeys, and uttering words whose sense we do not in any way understand, like parrots. But at least I can console myself with the thought that my critics here link my physics with pure mathematics, which I desire above all that it should resemble.

There are two further questions which they add at the end: how can the soul move the body if it is in no way material, and how can it receive the forms of corporeal objects? These questions simply give me the opportunity to point out that the author of the *Counter-Objections* was being quite unfair when, under the pretext of objecting to my views, he put to me large numbers of such questions which do not require to be answered in order to prove what I asserted in my writings. The most ignorant people could, in a quarter of an hour, raise more questions of this kind than the wisest men could deal with in a lifetime; and this is why I have not bothered to answer any of them. These questions presuppose amongst other things an explanation of the union between the soul and the body, which I have not yet dealt with at all. But I will say, for your benefit at least, that the whole problem contained in such questions arises simply from a supposition that is false and cannot in any way be proved, namely that, if the soul and the body are two substances whose nature is different, this prevents them from being able to act on each other. And yet, those who admit the existence of real accidents like heat, weight and so on, have no doubt that these accidents can act on the body; but there is much more of a difference between them and it, i.e. between accidents and a substance, than there is between two substances.

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## MERSENNE, ET AL., AGAIN

After a very careful reading of your *Meditations* and of your replies to the objections so far raised, we find there are still some difficulties remaining, which it is only fair to ask you to remove.

[...]

To come to the *second* difficulty, when you say you are thinking and that you exist, someone might maintain that you are mistaken, and are not thinking but are merely in motion, and that you are nothing else but corporeal motion. For no one has yet been able to grasp that demonstration of yours by which you think you have proved that what you call thought cannot be a kind of corporeal motion. Have you used your method of analysis to separate off all the motions of that rarefied matter of yours? Is this what makes you so certain? And can you therefore show us (for we will give our closest attention and our powers of perception are, we think, reasonably keen) that it is self-contradictory that our thoughts should be reducible to these corporeal motions?

The *third* difficulty is very like the second. Several of the Church Fathers believed, along with the Platonists, that angels are corporeal, which led the Lateran Council to decide that they can be depicted; the Fathers took exactly the same view of the rational soul, some of them maintaining that it was passed on in pro-

creation. But in spite of this, they still maintained that angels think, and that the soul thinks. They appear to have believed that this could occur by means of corporeal motions, or even that angels were themselves corporeal motions; at any rate they drew no distinction between thought and such motions. This view can be confirmed by reference to the thoughts of apes, dogs and other animals. For dogs bark in their sleep as if they were chasing hares or robbers, and when they are awake they know that they are running, just as in their dreams they know that they are barking; yet, like you, we do not recognize any element in them which is distinct from their bodies. If you say that a dog does not know that it is running or thinking, then this is an assertion that cannot be proved; the dog might well make a similar judgement about us, and suppose that when we are running or thinking, we do not know that we are running or thinking. You do not see the dog's internal mode of operation any more than he sees yours; and there are plenty of distinguished men, both now and in the past, who have been prepared to allow that the beasts have reason. So far are we from accepting that all their operations can be satisfactorily explained by means of mechanics, without invoking any sensation, life or soul, that we are willing to wager anything you like that this is an impossible and ridiculous claim. Finally, there are plenty of people who will say that man himself lacks sensation and intellect, and can do everything by means of mechanical structures, without any mind, given that apes, dogs and elephants can perform all their operations by mechanical means. For if the limited reasoning power to be found in animals differs from human reason, the difference is merely one of degree and does not imply any essential difference.

[…]

The *fifth* difficulty arises from this point, and it is based on your uncompromising assertion that no deception is to be found in God. Now very many theologians believe that the damned, both angels and men, are continually deceived by the idea of a tormenting fire which God has implanted in them; thus they most firmly believe, and think they see and perceive very clearly, that they are really being tormented by the fire, even though there is no such fire. May not God, then, deceive us with similar ideas, and continually delude us by sending such semblances or ideas into our souls? Thus we might think we clearly saw, and perceived with each of our senses, things which in fact have no existence outside us: there might be no heaven or earth, and we might have no arms or feet or eyes etc. God can do this without any wrong or injustice, since he is the supreme Lord of all things and has the absolute power to deal with his creatures as he wishes, especially when his actions may serve to humble the pride of men and punish them for their sins, either because of original sin or because of other causes which are hidden from us. All this seems to be confirmed by those passages in Scripture which establish that we can know nothing. Paul, for example, says in I Corinthians, Chapter 8, verse 2: 'If any man think that he knoweth anything, he knoweth nothing yet as he ought to know.' Again, in Ecclesiastes, Chapter 8, verse 17 we find: 'Then I understood that of all the works of God a man can find no reason for those that are done under the sun; and the more he labours to seek it, the less shall he find it; nay, though a wise man say that he knoweth it, yet shall he be unable to find it out.' The whole book makes it clear that the 'wise man' says what he does because of carefully considered reasons, not hastily or thoughtlessly; this is exceptionally clear when the issue of the mind, which you maintain is immortal, is discussed. For Chapter 3, verse 19 says that the death of man 'is as the death of beasts'. In case you should reply that this refers only to the body, the preacher adds that 'a man hath no pre-eminence above a beast'. And speaking explicitly of the spirit of man he says that there is no one who knows 'whether it goeth upward' (i.e. whether it is immortal), or whether, with the spirits of the beasts, it 'goeth downward' (i.e. perishes). You cannot claim that these are words put into the mouth of an unbeliever; if so, the writer would have had to have drawn our attention to this and refuted these assertions. Nor can you claim that you do not have to reply to these points because Scripture is the province of the theologians. For since you are a Christian, it behoves you to be ready to reply to every objection that can be raised against the faith and deal with it to the best of your powers—especially when it goes against a position you wish to establish.

[…]

These are the main questions that give us pause. After dealing with them, we ask you to provide in addition a reliable rule and some firm criteria which will make us utterly sure of the following point: when we understand something entirely apart from some other thing, in the way you describe, is it indeed certain that the one is so distinct from the other that they could subsist apart—at least through the power of God? That is, how can we know for sure, clearly and distinctly, that when our intellect makes this distinction, the distinction does not arise solely from the intellect but arises from the nature of the things themselves? For when we contemplate the immensity of God while not thinking of his justice, or when we contemplate his existence when not thinking of the Son or the Holy Spirit, do we not have a complete perception of that existence, or of God as existing, entirely apart from the other Persons of the Trinity? So could not an unbeliever deny that these Persons belong to God on the same reasoning that leads you to deny that the mind or thought belongs to the body? If anyone concludes that the Son and the Holy Spirit are essentially distinct from God the Father or that they can be separated from him, this will be an unsound inference; and in the same way, no one will grant you that thought, or the human mind, is distinct from the body, despite the fact that you conceive one apart from the other and deny the one of the other, and despite your belief that this does not come about simply through an abstraction of your mind. If you can give a satisfactory answer to these points, then, so far as we can see, nothing at all remains that can displease our theologians.

[…]

There now follow a number of points suggested by other critics. These are included to give you the opportunity to reply to them in conjunction with the preceding objections, since they belong to the same argument. Some of your most learned and acute critics have asked for clarification on the following three points:

(1) How do I know for certain that I have a clear idea of my soul?

(2) How do I know for certain that this idea is wholly different from any other thing?

(3) How do I know for certain that this idea contains nothing of a corporeal nature?

The following argument has been put forward by another group of critics.

FROM A GROUP OF PHILOSOPHERS AND GEOMETERS TO M. DESCARTES

However much we ponder on the question of whether the idea of our mind (or a human mind), i.e. our knowledge and perception of it, contains anything corporeal, we cannot go so far as to assert that what we call thought cannot in any way belong to a body subject to some sort of motion. For since we see that there are some bodies that do not think, and others, namely human bodies and perhaps those of the brutes, which do think, will not you yourself convict us of sophistry and of making rash judgements if we infer from this that there are no bodies that think? We can hardly doubt that we would deserve your lasting ridicule if it was we who had originally devised this argument from ideas to establish the nature of the mind and the existence of God, and you had then condemned it by using your method of analysis. But you seem to be so preoccupied and prepossessed by this method that you seem to have dulled your mind with it, so that you are no longer free to see that the individual properties or operations of the soul which you find in yourself depend upon corporeal motions.

If you do not accept this, then you must untie the knot which in your view must be binding us with adamantine bonds and preventing our mind from soaring above every kind of body. The knot is this. We perceive very well that three and two make five and that if you take equals from equals the remainders will be equal; we are convinced of these and numerous other matters, just as you find yourself to be. But why are we not similarly convinced on the basis of your ideas, or our own, that the soul of man is distinct from the body, or that God exists? You will say that you cannot graft this truth into us unless we are prepared to meditate along with you. Well, we have read what you have written seven times, and have lifted up our minds, as best we could, to the level of the angels, but we are still not convinced. We do not believe you will allege that our minds are in the grip of a brutish stupor and are wholly unfitted for metaphysical subjects, when we have had thirty years practice in them! Surely you will prefer to accept that your arguments derived from the ideas of the mind and of God do not have the kind of weight or strength that could or should conquer the minds of learned men who have tried with all their might to detach themselves from corporeal stuff. Indeed we think you will readily admit this if you re-read your *Meditations* in the spirit of analytical scrutiny which you would adopt if they had been put forward for your examination by an opponent.

Lastly, since we do not know what can be done by bodies and their motions, and since you confess that without a divine revelation no one can know everything which God has imparted or could impart to any object, how can you possibly have known that God has not implanted in certain bodies a power or property enabling them to doubt, think etc.?

These are our arguments, or if you prefer, our 'preconceived opinions'. If you can cure them, then, Sir, we swear by the ever-living God that we will all join in giving you our fullest thanks for freeing us from the thorns which are choking the seed you have sown! May almighty God in his supreme goodness bring this to pass, since we can see that it is to his glory alone that you have so auspiciously devoted all your efforts.

[Descartes to Mersenne, et al.]

AUTHOR'S REPLIES TO THE SIXTH SET OF OBJECTIONS

[...]

2. When someone notices that he is thinking, then, given that he understands what motion is, it is quite impossible that he should believe that he is mistaken and is 'not thinking but merely in motion'. Since the idea or notion which he has of thought is quite different from his idea of corporeal motion, he must necessarily understand the one as different from the other. Because, however, he is accustomed to attribute many different properties to one and the same subject without being aware of any connection between them, he may possibly be inclined to doubt, or may even affirm, that he is one and the same being who thinks and who moves from place to place. Notice that if we have different ideas of two things, there are two ways in which they can be taken to be one and the same thing: either in virtue of the unity or identity of their nature, or else merely in respect of unity of composition. For example, the ideas which we have of shape and of motion are not the same, nor are our ideas of understanding and volition, nor are those of bones and flesh, nor are those of thought and of an extended thing. But nevertheless we clearly perceive that the same substance which is such that it is capable of taking on a shape is also such that it is capable of being moved, and hence that that which has shape and that which is mobile are one and the same in virtue of a unity of nature. Similarly, the thing that understands and the thing that wills are one and the same in virtue of a unity of nature. But our perception is different in the case of the thing that we consider under the form of bone and that which we consider under the form of flesh; and hence we cannot take them as one and the same thing in virtue of a unity of nature but can regard them as the same only in respect of unity of composition—i.e. in so far as it is one and the same animal which has bones and flesh. But now the question is whether we perceive that a thinking thing and an extended thing are one and the same by a unity of nature. That is to say, do we find between thought and extension the same kind of affinity or connection that we find between shape and motion, or understanding and volition? Alternatively, when they are said to be 'one and the same' is this not rather in respect of unity of composition, in so far as they are found in the same man, just as bones and flesh are found in the same animal? The latter view is the one I maintain, since I observe a distinction or difference in every respect between the nature of an extended thing and that of a thinking thing, which is no less than that to be found between bones and flesh.

However, you go on to say that no one has been able to grasp this demonstration of mine. In case this appeal to authority may prejudice the truth, I am compelled to reply that even though not many people have yet examined the demonstration, there are nevertheless several who affirm that they understand it. One witness who has sailed to America and says that he has seen the antipodes deserves more credence than a thousand others who deny their existence merely because they have no knowledge of them. And similarly, those who give due consideration to the true force of an argument will have more respect for the authority of one person who says that he has understood a proof correctly, than they will accord to a thousand others who claim, without providing any argument to back up their case, that it cannot be understood by anyone. For the fact

that such people fail to understand the argument themselves does not prevent anyone else's understanding it; indeed, the very fact that they infer its general unintelligibility from their own failure to understand it shows that their reasoning is careless, and that they do not deserve to have their views accepted.

Lastly, my critics ask whether I have used my method of analysis to separate off all the motions of that rarefied matter of mine. Is this (they ask) what makes me certain? And can I therefore show my critics, who are most attentive and (they think) reasonably perceptive men, that it is self-contradictory that our thought should be reduced to corporeal motions? By 'reduced' I take it that they mean that our thought and corporeal motions are one and the same. My reply is that I am very certain of this point, but I cannot guarantee that others can be convinced of it, however attentive they may be, and however keen, in their own judgement, their powers of perception may be. I cannot guarantee that they will be persuaded, at least so long as they focus their attention not on things which are objects of pure understanding but only on things which can be imagined. This mistake has obviously been made by those who have imagined that the distinction between thought and motion is to be understood by making divisions within some kind of rarefied matter. The only way of understanding the distinction is to realize that the notions of a thinking thing and an extended or mobile thing are completely different, and independent of each other; and it is self-contradictory to suppose that things that we clearly understand as different and independent could not be separated, at least by God. Thus, however often we find them in one and the same subject—e.g. when we find thought and corporeal motion in the same man—we should not therefore think that they are one and the same in virtue of a unity of nature, but should regard them as the same only in respect of unity of composition.

3. The view here advanced in connection with the Platonists and their followers has now been rejected by the entire Catholic Church and is commonly dismissed by all philosophers. The Lateran Council did conclude that angels could be depicted, but did not, in so doing, grant that they were corporeal. And even if they really were believed to be corporeal, it would certainly not be intelligible to suppose their minds to be inseparable from their bodies, any more than it is in the case of men. Again, even if the human soul were supposed to be passed on in procreation, it could not be concluded from this that it was corporeal, but only that it was derived from the soul of the parents, just as the body grows from the parents' body. As for dogs and apes, even were I to concede that they have thought, it would not in any way follow from this that the human mind is not distinct from the body; the conclusion would rather be that in other animals, too, the mind is distinct from the body. This was the view taken by those same Platonists whose authority my critics were extolling a moment ago, as is clear from the fact that they followed the Pythagoreans in believing in the transmigration of souls. But in fact the brutes possess no thought whatsoever; I not only stated this, as my critics here imply, but proved it by very strong arguments which no one has refuted up till now. Yet those who assert, as if they were present in the animals' hearts, that 'dogs when awake know that they are running, and in their dreams know that they are barking', are simply saying something without proving it. My critics go on to say that they do not believe that the ways in which the beasts operate can be explained 'by means of mechanics without invoking any sensation, life or soul' (I take this to mean 'without invoking thought'; for I accept that the brutes have what is commonly called 'life', and a corporeal soul and organic sensation); moreover, they are 'ready to wager any amount that this is an impossible and ridiculous claim'. But these remarks should not be taken to constitute an argument, for the same could be said of any other claim, however true it might be. Indeed the use of wagers in debate is generally resorted to only when there is a lack of arguments to prove the case; and since once upon a time distinguished people used to laugh at claims about the antipodes in just such a fashion, I do not think that a claim should be immediately dismissed as false just because some people laugh at it.

My critics add in conclusion: 'There are plenty of people who will say that man himself lacks sensation and intellect, and can do everything by means of mechanical structures, without any mind, given that apes, dogs and elephants can perform all their operations by mechanical means.' This is surely not an argument that proves anything, except perhaps that some people have such a confused conception of everything and cling so tenaciously to their preconceived opinions (which they understand only in a verbal way) that rather than change them they will deny of themselves what they cannot fail to experience within themselves all the time. We cannot fail constantly to experience within ourselves that we are thinking. It may be shown that animate brutes can perform all their operations without any thought, but this does not entitle anyone to infer that he does not himself think. Such an inference would be made only by someone who has previously been convinced that he operates in exactly the same way as the brutes, simply because he has attributed thought to them; he then remains so stubbornly attached to the sentence 'Men and the brutes operate in the same way' that when it is pointed out to him that the brutes do not think, he actually prefers to deny his own thought, of which he cannot fail to be aware, rather than change his opinion that he operates in the same way as the brutes. But I find it hard to accept that there are many people of this sort. It will be found that the great majority, given the premiss that thought is not distinct from corporeal motion, take a much more rational line and maintain that thought is the same in the brutes as it is in us, since they observe all kinds of corporeal motions in them, just as in us. And they will add that 'the difference, which is merely one of degree, does not imply any essential difference'; from this they will be quite justified in concluding that, although there may be a smaller degree of reason in the beasts than there is in us, the beasts possess minds which are of exactly the same type as ours.

[…]

5. The assertion that it is self-contradictory that men should be deceived by God is clearly demonstrated from the fact that the form of deception is non-being, towards which the supreme being cannot tend. On this point all theologians are agreed, and the entire certainty of the Christian faith depends on it. For why should we believe what God has revealed to us if we thought that we were from time to time deceived by him? And although the theologians commonly say that the damned are tormented by the fires of hell, they do not therefore believe that they are 'deceived by the false idea of a tormenting fire which God has implanted in them'; rather they think that the damned are tormented by a real fire, since 'just as the incorporeal spirit of a living man is naturally confined within the body, so after death it can easily be confined in corporeal fire, through the power of God', etc. See the Master of the Sentences, Book IV Distinction 44.

As for the passages cited from Scripture, I do not regard it as my job to comment on them, except when they seem to be in conflict with an opinion that is peculiar to me. For when the Scriptures are invoked against opinions which are common to all Christians, such as the opinions attacked here (e.g. that something can be known and that human souls are not like those of animals), I should be afraid of being accused of arrogance if I did not choose to be content with the replies already discovered by others, rather than thinking up new answers of my own. For I have never become involved in theological studies except in so far as they contributed to my private instruction, nor am I conscious of having so much divine grace within me that I feel a vocation for such sacred studies. So I hereby declare that in future I will refuse to comment on questions of this kind; but I will make an exception just this once, to avoid giving anyone an excuse to think that I am keeping silent because I cannot give an adequate explanation of the passages cited.

First, then, I maintain that the passage from St Paul 1 Corinthians, Chapter 8, verse 2, should be understood to refer only to knowledge which is not conjoined with love, i.e. to the knowledge possessed by atheists; for if anyone knows God as he should, he cannot fail to adore him or to have love. This is proved by the words that come just before those cited, 'Knowledge puffeth up, but love edifieth', and also by the words which immediately follow: 'If anyone loveth God, the same (i.e. God) is known by him.' Thus the apostle does not mean that we cannot possess any knowledge, for he admits that those who love God know him, i.e. have knowledge of him. He merely says that those who do not have love, and hence do not have sufficient knowledge of God, do not know things as they ought to know them, even though they may think they have some knowledge in other matters; for we must begin with knowledge of God, and our knowledge of all other things must then be subordinated to this single initial piece of knowledge, as I explained in my *Meditations*. Thus this very passage which is invoked against me so openly confirms my own opinion on the subject that I do not think that those who disagree with me can possibly give a correct explanation of it. If anyone maintains that the phrase 'the same' refers not to God but to the man who is known and approved of God, then a passage from another apostle, namely St John, in the First Epistle, Chapter 2, wholly supports my interpretation. Verse 2 reads as follows: 'And hereby we do know that we know him, if we keep his commandments.' Again, Chapter 4, verse 7 reads: 'Everyone that loveth is born of God and knoweth God.'

The same reasoning applies to the passages cited from Ecclesiastes. It should be noted that in this book Solomon is not adopting the role of an unbeliever but speaking in his own right, as a sinner who had previously turned away from God and is now repenting. He says that while he merely employed human wisdom and did not refer it to God, he was unable to find anything that was wholly satisfying, or which did not contain vanity. Because of this he warns us in various passages that we should turn to God, and he makes this explicit in Chapter 11, verse 9: 'Know thou that for all these things God will bring thee to judgement'; the message is continued in what follows up to the end of the book. More specifically, in Chapter 8, verse 17, the words 'then I understood that of all the works of God man can find no reason for those that are done under the sun' are to be taken to refer not to any man, but to the man described in the preceding verse: 'There is a man that neither by day or night taketh sleep with his eyes.' It is as if the prophet wanted to warn us here that those who are too assiduous in their studies are not suited to the pursuit of truth; and those who know me will certainly find it hard to suppose that this saying applies to me. But we should pay special attention to the phrase 'those things that are done under the sun'. This phrase frequently recurs in the book, and always refers to natural things, leaving out their subordination to God; this is because God is above all things, and hence is not included in those which are *under* the sun. Thus the true sense of the passage cited is that man cannot achieve correct knowledge of natural things so long as he does not know God, which is just what I too have asserted. Finally, in Chapter 3, verse 19, the statements 'The death of man is as the death of the beasts' and 'Man hath no pre-eminence above a beast' are obviously intended to apply only to the body; for the passage mentions only things which belong to the body. Immediately afterwards we find a separate comment about the soul: 'Who knoweth if the spirit of the sons of Adam goeth upward and if the spirit of the beasts goeth downward?' In other words, who knows whether human souls are destined to enjoy celestial bliss, so long as man relies on human reasoning and does not turn to God? Now I have certainly tried to prove by natural reason that the human soul is not corporeal, but I grant that only faith can enable us to know whether it will ascend above.

[…]

10. My critics' remaining comments are put forward as doubts rather than as objections, and I am not so confident of my powers as to venture to guarantee that I shall be able to give a satisfactory explanation of matters which I see still give rise to doubt in the minds of many learned and highly intelligent men. But nevertheless, so as not to desert the cause, I will do what I can and give a frank account of how it happened that I managed to free myself entirely from these same doubts. In so doing, I shall be delighted if my comments are perhaps of some help to others; and if they are not, I shall at least not feel myself to have made any rash promises.

When, on the basis of the arguments set out in these Meditations, I first drew the conclusion that the human mind is really distinct from the body, better known than the body, and so on, I was compelled to accept these results because everything in the reasoning was coherent and was inferred from quite evident principles in accordance with the rules of logic. But I confess that for all that I was not entirely convinced; I was in the same plight as astronomers who have established by argument that the sun is several times larger than the earth, and yet still cannot prevent themselves judging that it is smaller, when they actually look at it. However, I went on from here, and proceeded to apply the same fundamental principles to the consideration of physical things. First I attended to the ideas or notions of each particular thing which I found within myself, and I carefully distinguished them one from the other so that all my judgements should match them. I observed as a result that nothing whatever belongs to the concept of body except the fact that it is something which has length, breadth and depth and is capable of various shapes and motions; moreover, these shapes and motions are merely modes which no power whatever can cause to exist apart from body. But colours, smells, tastes and so on, are, I observed, merely certain sensations which exist in my thought, and are as different from bodies as pain is different from the shape and motion of the weapon which produces it. And lastly, I observed that heaviness and hardness and the power to heat or to attract, or

to purge, and all the other qualities which we experience in bodies, consist solely in the motion of bodies, or its absence, and the configuration and situation of their parts.

Since these opinions were completely different from those which I had previously held regarding physical things, I next began to consider what had led me to take a different view before. The principal cause, I discovered, was this. From infancy I had made a variety of judgements about physical things in so far as they contributed to preserving the life which I was embarking on; and subsequently I retained the same opinions I had originally formed of these things. But at that age the mind employed the bodily organs less correctly than it now does, and was more firmly attached to them; hence it had no thoughts apart from them and perceived things only in a confused manner. Although it was aware of its own nature and had within itself an idea of thought as well as an idea of extension, it never exercised its intellect on anything without at the same time picturing something in the imagination. It therefore took thought and extension to be one and the same thing, and referred to the body all the notions which it had concerning things related to the intellect. Now I had never freed myself from these preconceived opinions in later life, and hence there was nothing that I knew with sufficient distinctness, and there was nothing I did not suppose to be corporeal; however, in the case of those very things that I supposed to be corporeal, the ideas or concepts which I formed were frequently such as to refer to minds rather than bodies.

For example, I conceived of gravity as if it were some sort of real quality, which inhered in solid bodies; and although I called it a 'quality', thereby referring it to the bodies in which it inhered, by adding that it was 'real' I was in fact thinking that it was a substance. In the same way clothing, regarded in itself, is a substance, even though when referred to the man who wears it, it is a quality. Or again, the mind, even though it is in fact a substance, can nonetheless be said to be a quality of the body to which it is joined. And although I imagined gravity to be scattered throughout the whole body that is heavy, I still did not attribute to it the extension which constitutes the nature of a body. For the true extension of a body is such as to exclude any interpenetration of the parts, whereas I thought that there was the same amount of gravity in a ten foot piece of wood as in one foot lump of gold or other metal—indeed I thought that the whole of the gravity could be contracted to a mathematical point. Moreover, I saw that the gravity, while remaining coextensive with the heavy body, could exercise all its force in any one part of the body; for if the body were hung from a rope attached to any part of it, it would still pull the rope down with all its force, just as if all the gravity existed in the part actually touching the rope instead of being scattered through the remaining parts. This is exactly the way in which I now understand the mind to be coextensive with the body—the whole mind in the whole body and the whole mind in any one of its parts. But what makes it especially clear that my idea of gravity was taken largely from the idea I had of the mind is the fact that I thought that gravity carried bodies towards the centre of the earth as if it had some knowledge of the centre within itself. For this surely could not happen without knowledge, and there can be no knowledge except in a mind. Nevertheless I continued to apply to gravity various other attributes which cannot be understood to apply to a mind in this way—for example its being divisible, measurable and so on.

But later on I made the observations which led me to make a careful distinction between the idea of the mind and the ideas of body and corporeal motion; and I found that all those other ideas of 'real qualities' or 'substantial forms' which I had previously held were ones which I had put together or constructed from those basic ideas. And thus I very easily freed myself from all the doubts that my critics here put forward. First of all, I did not doubt that I 'had a clear idea of my mind', since I had a close inner awareness of it. Nor did I doubt that 'this idea was quite different from the ideas of other things', and that 'it contained nothing of a corporeal nature'. For I had also looked for true ideas of all these 'other things', and I appeared to have some general acquaintance with all of them; yet everything I found in them was completely different from my idea of the mind. Moreover, I found that the distinction between things such as mind and body, which appeared distinct even though I attentively thought about both of them, is much greater than the distinction between things which are such that when we think of both of them we do not see how one can exist apart from the other (even though we may be able to understand one without thinking of the other). For example, we can understand the immeasurable greatness of God even though we do not attend to his justice; but if we attend to both, it is quite self-contradictory to suppose that he is immeasurably great and yet not just. Again, it is possible to have true knowledge of the existence of God even though we lack knowledge of the Persons of the Holy Trinity, since the latter can be perceived only by a mind which faith has illuminated; yet when we do perceive them, I deny that it is intelligible to suppose that there is a real distinction between them, at least as far as the divine essence is concerned, although such a distinction may be admitted as far as their mutual relationship is concerned.

Finally, I was not afraid of being so preoccupied with my method of analysis that I might have made the mistake suggested by my critics: seeing that there are 'certain bodies which do not think' (or, rather, clearly understanding that certain bodies can exist without thought), I preferred, they claim, to assert that thought does not belong to the nature of the body rather than to notice that there are certain bodies, namely human ones, which do think, and to infer that thought is a mode of the body. In fact I have never seen or perceived that human bodies think; all I have seen is that there are human beings, who possess both thought and a body. This happens as a result of a thinking thing's being combined with a corporeal thing: I perceived this from the fact that when I examined a thinking thing on its own, I discovered nothing in it which belonged to body, and similarly when I considered corporeal nature on its own I discovered no thought in it. On the contrary, when I examined all the modes of body and mind, I did not observe a single mode the concept of which did not depend on the concept of the thing of which it was a mode. Also, the fact that we often see two things joined together does not license the inference that they are one and the same; but the fact that we sometimes observe one of them apart from the other entirely justifies the inference that they are different. Nor should the power of God deter us from making this inference. For it is a conceptual contradiction to suppose that two things which we clearly perceive as different should become one and the same (that is intrinsically one and the same, as opposed to by combination); this is no less a contradiction than to suppose that two things which are in no way distinct should be separated. Hence, if God has implanted the power of thought in certain bodies (as he in fact has done in the case of human bodies), then he can

remove this power from them, and hence it still remains really distinct from them.

It is true that, before freeing myself from the preconceived opinions acquired from the senses, I did perceive correctly that two and three make five, and that if equals are taken from equals the remainders are equal, and many things of this kind; and yet I did not think that the soul of man is distinct from his body. But I do not find this surprising. For I can easily see why it happened that, when still an infant, I never made any false judgements about propositions of this sort, which everyone accepts; the reason was that I had no occasion to employ these propositions, since children do not learn to count two and three until they are capable of judging whether they make five. But, by contrast, I had from my earliest years conceived of my mind and body as a unity of some sort (for I had a confused awareness that I was composed of mind and body). It happens in almost every case of imperfect knowledge that many things are apprehended together as a unity, though they will later have to be distinguished by a more careful examination.

What does greatly surprise me is that learned men who have 'practised metaphysical studies for thirty years' and have read my *Meditations* 'seven times' consider that if I re-read them in the spirit of analytical scrutiny which I would adopt if they had been put forward by an opponent, I would not believe that the arguments contained there had the kind of 'weight or strength' that ought to lead everyone to assent to them. It is surprising that my critics should say this even though they themselves cannot point to any flaw whatsoever in these arguments of mine. They certainly give me more credit than they should, or than should be given to anyone, if they think that the kind of 'analysis' I employ is one which enables true demonstrations to be overthrown and false ones to be so disguised and tricked out that no one is capable of refuting them. On the contrary, I declare that the only method I have sought is one which will enable the certainty of true arguments to be known and the flaws in false ones to be detected. Hence I am struck not so much by the fact that there are learned men who do not yet accept my conclusions as by the fact that, after a careful and repeated rereading of my arguments they can point to no false assumptions or invalid inferences in what I have written. As to their reluctance to accept the conclusions, that can easily be attributed to the inveterate habit of making different judgements on these matters; they are just like the astronomers who, as noted earlier, do not find it easy to picture the sun as being bigger than the earth although they can demonstrate this by most reliable arguments. But the only possible reason that I can see why neither these critics, nor, as far as I know, any others, have so far been able to fault my arguments is that they possess complete truth and certainty; in particular, they are deduced step by step, not from principles which are obscure and unknown, but, in the first place, from total doubt about all things, and, in the second place, from principles which appear to be utterly evident and certain to the mind, once it has been set free from preconceived opinions. It follows from this that there cannot be any mistakes in my arguments which would not be noticed without difficulty by anyone of even moderate intelligence. Hence I think I can justly conclude that if these learned gentlemen cannot yet accept my conclusions after several close readings, their authority does not so much weaken what I have written as strengthen it, since after such a careful and repeated examination, they have failed to note any errors or fallacies in my demonstrations.