

can. In fact, I believe that the occupations we choose for ourselves, however agreeable they may be, do not keep us from thinking about our infirmities so well as the occupations we are obliged to undertake by some duty. I think too that our body becomes so well accustomed to the style of life we lead that when we change this style, then, more often than not, our health worsens rather than improves, especially when the change is too sudden. That is why I think it best to pass from one extreme to another only by degrees. In my case, for instance, before coming to this country in search of solitude I spent a winter in France, in that part of the country where I received my early education. And if I were leading a style of life which my indisposition did not allow me to continue for a long time, I would not try to hide this indisposition; instead I would try to make it seem
 559 greater than it was, thus enabling me honestly to avoid any action which might make it worse. And so, by increasing my leisure-time little by little, I would gradually achieve complete freedom.

AT V

TO MORE, 5 FEBRUARY 1649

267 The praises which you heap on me are proof rather of your kindness than of any merit of mine, which could never equal them. Such generosity,
 268 however, based on the mere reading of my writings, displays so clearly the candour and nobility of your mind that though unacquainted with you hitherto, I have been completely captivated. So I will answer very willingly the queries which you put to me.

1. The first question was why I defined body as extended substance, rather than perceptible, tangible or impenetrable substance. It is clear that if body is called perceptible substance, it is defined by its relation to our senses, and thus we explain only a certain property of it, rather than its whole nature. This nature certainly does not depend upon our senses, since it could exist even though there were no men, and so I do not see why you say that it is altogether necessary that all matter should be perceptible by the senses. Just the opposite is the case: all matter is completely imperceptible if it is divided into parts much smaller than the particles of our nerves and the individual parts are given a sufficiently rapid movement.

The argument of mine which you call 'cunning and almost sophistical' I used only to refute the opinion of those who, like you, think that every body is perceptible by the senses.¹ I think it does give a clear and definitive refutation of that view. For a body can retain its whole bodily nature without being soft or hard or cold or hot to the senses – indeed without having any perceptible quality.

1 See *Principles*, Part II, art. 4: AT VIII A 42; CSM I 224.

You make a comparison with some wax, which although it can be not square and not round, cannot be completely without shape. But since according to my principles, all perceptible qualities consist solely in the fact that the particles of a body are in motion or at rest in a certain manner, in order to fall into the error which you seem to attribute to me here, I would have had to conclude that a body could exist without any of its particles being either at motion or at rest. But this is something which never entered my mind. Body, therefore, is not rightly defined as perceptible substance. 269

Let us see next whether body is more appropriately called 'impenetrable or tangible substance', in the sense which you explained. Now tangibility or impenetrability in body is something like the ability to laugh in man; according to the common rules of logic it is a 'property of the fourth kind', and not a true and essential differentia such as I claim extension to be. Consequently, just as man is defined not as an animal capable of laughter, but as a rational animal, so body should be defined not by impenetrability but by extension. This is confirmed by the fact that tangibility and impenetrability involve a reference to parts and presuppose the concept of division or limitation; whereas we can conceive a continuous body of indeterminate size, or an indefinite body in which there is nothing to consider except extension.

'But', you say, 'God, or an angel, or any other self-subsistent thing is extended, and so your definition is too broad.' It is not my custom to argue about words, and so if someone wants to say that God is in a sense extended, since he is everywhere, I have no objection. But I deny that true extension as commonly conceived is to be found in God or in angels or in our mind or in any substance which is not a body. Commonly when people talk of an extended being, they mean something imaginable. In this being – I leave on one side the question whether it is conceptual or real – they can distinguish by the imagination various parts of determinate size and shape, each non-identical with the others. Some of these parts can be imagined as transferred to the place of others, but no two can be imagined simultaneously in one and the same place. Nothing of this kind can be said about God or about our mind; they cannot be apprehended by the imagination, but only by the intellect; nor can they be distinguished into parts, and certainly not into parts which have determinate sizes and shapes. Again, we easily understand that the human mind and God and several angels can all be at the same time in one and the same place. So we clearly conclude that no incorporeal substances are in any strict sense extended. I conceive them as sorts of powers or forces, which although they can act upon extended things, are not themselves extended – just as fire is in white-hot iron without itself being iron. Some people indeed do confuse the notion of 270

substance with that of extended thing. This is because of the false preconceived opinion which makes them believe that nothing can exist or be intelligible without being also imaginable, and because it is indeed true that nothing falls within the scope of the imagination without being in some way extended. Now just as we can say that health belongs only to human beings, though by analogy medicine and a temperate climate and many other things also are called healthy, so too I call extended only what is imaginable as having parts within parts, each of determinate size and shape – although other things may also be called extended by analogy.

271 2. I pass to your second difficulty. If we examine what is this extended being which I described, we will find that it is no different from the space which is popularly regarded sometimes as full and sometimes as empty, sometimes as real and sometimes as imaginary. For in a space – even an imaginary and empty space – everyone readily imagines various parts of determinate size and shape; and some of the parts can be transferred in imagination to the place of others, but no two of them can in any way be conceived as compenetrating each other at the same time in one and the same place, since it is contradictory for this to happen without some part of space being removed. Now since I consider that such real properties can exist only in a real body, I dared to assert that there can be no completely empty space, and that every extended being is a genuine body. On this topic I did not hesitate to disagree with great men such as Epicurus, Democritus and Lucretius, for I saw that they were guided by no solid reason, but only by the false preconception with which we have all been imbued from our earliest years. As I warned in article 3 of Part Two,¹ our senses do not always show us external bodies exactly as they are, but only in so far as they are related to us and can benefit or harm us. Despite this, we all decided when we were still children that there is nothing in the world besides what the senses show us, and hence there are no bodies which are not perceivable by the senses, and all places in which we do not perceive anything are empty. Since Epicurus, Democritus and Lucretius never overcame this preoccupation, I have no obligation to follow their authority.

272 I am surprised that a man otherwise so perspicacious, having seen that he cannot deny that there is some substance in every space, since all the properties of extension are truly found in it, should nevertheless prefer to say that the divine extension fills up the space in which there are no bodies, rather than admit that there can be no space without body. For as I said earlier, the alleged extension of God cannot be the subject of the true properties which we perceive very distinctly in all space. For God is not

¹ *Principles*: AT VIII A 41; CSM I 224.

imaginable or distinguishable into parts that are measurable and have shape.

But you are quite ready to admit that in the natural course of events there is no vacuum: you are concerned about God's power, which you think can take away the contents of a container while preventing its sides from meeting. For my part, I know that my intellect is finite and God's power is infinite, and so I set no limits to it; I consider only what I am capable of perceiving, and what not, and I take great pains that my judgement should accord with my perception. And so I boldly assert that God can do everything which I perceive to be possible, but I am not so bold as to assert the converse, namely that he cannot do what conflicts with my conception of things – I merely say that it involves a contradiction. And so, since I see that it conflicts with my way of conceiving things for all body to be taken out of a container and for there to remain an extension which I conceive in no way differently than I previously conceived the body contained in it, I say that it involves a contradiction that such an extension should remain there after the body has been taken away. I conclude that the sides of the container must come together. This is altogether in accord with my other opinions. For I say elsewhere¹ that all motion is in a manner circular; from which it follows that it cannot be distinctly understood that God should remove some body from a container unless we understand at the same time that another body, or the sides of the container, should move into its place by a circular motion. 273

3. In the same way I say that it involves a contradiction that there should be any atoms which are conceived as extended and at the same time indivisible.² Though God might make them such that they could not be divided by any creature, we certainly cannot understand that he might deprive himself of the power of dividing them. Your comparison with things which have been done and cannot be undone is not to the point. For we do not take it as a mark of impotence when someone cannot do something which we do not understand to be possible, but only when he cannot do something which we distinctly perceive to be possible. Now we certainly perceive it to be possible for an atom to be divided, since we suppose it to be extended; and so, if we judge that it cannot be divided by God, we shall judge that God cannot do one of the things which we perceive to be possible. But we do not in the same way perceive it to be possible for what is done to be undone – on the contrary, we perceive it to be altogether impossible, and so it is no defect of power in God not to do it.

1 Cf. *Principles*, Part II, art. 34: AT VIII A 59; CSM I 239.

2 Cf. *Principles*, Part II, art. 20: AT VIII A 51; CSM I 231.

The case is different with the divisibility of matter; for though I cannot count all the parts into which it is divisible (and which I say are on that account indefinite in number), yet I cannot assert that their division by
 274 God could never be completed, because I know that God can do more things than I can encompass within my thought. Indeed I agreed in article 34¹ that such indefinite division of certain parts of matter sometimes actually takes place.

4. In my view it is not a matter of affected modesty, but of necessary caution, to say that some things are indefinite rather than infinite. God is the only thing I positively understand to be infinite. As to other things like the extension of the world and the number of parts into which matter is divisible, I confess I do not know whether they are absolutely infinite; I merely know that I know no end to them, and so, looking at them from my own point of view, I call them indefinite. True, our mind is not the measure of reality or of truth; but certainly it should be the measure of what we assert or deny. What is more rash or absurd than to want to make judgements about matters which we admit our mind cannot perceive? I am surprised that you seem to wish to do this when you say 'if extension is infinite only in relation to us, then it will in fact be finite'. Not only this, but you also imagine some divine extension which goes further than the extension of bodies; and thus you suppose that God has parts within parts and is divisible, and even attribute to him all the essence of a corporeal thing.

To remove all difficulties here, I should explain that I call the extension of matter indefinite in the hope that this will prevent anyone imagining a
 275 place outside it into which the particles of my vortices might escape,² for on my view, wherever such a place may be conceived, there is some matter. When I say that matter is indefinitely extended, I am saying that it extends further than anything a human being can conceive. Nevertheless, I think there is a very great difference between the vastness of this bodily extension and the vastness of the divine substance or essence (I do not say 'divine extension', because strictly speaking, there is none); and so I call the latter simply 'infinite', and the former 'indefinite'.

Moreover, I do not agree with what you very generously concede, namely that the rest of my opinions could stand even if what I have written about the extension of matter were refuted. For it is one of the most important, and I believe the most certain, foundations of my physics; and I confess that no reasons satisfy me even in physics unless they involve that

1 *Principles*: AT VIII A 59; CSM I 239.

2 On vortices, see *Principles*, Part III, art. 65: AT VIII A 116.

necessity which you call logical or analytic,¹ provided you except things which can be known by experience alone, such as that there is only one sun and only one moon around the earth, and so on. Since in other matters you are well disposed to my views, I hope that you will come to agree with these too, if you reflect that it is a preconceived opinion which makes many people think that an extended being in which there is nothing to affect the senses is not a true corporeal substance but merely an empty space, and that there are no bodies which are not perceivable by the senses, and no substance which does not fall within the scope of the imagination and is consequently extended.

5. But there is no preconceived opinion to which we are all more accustomed from our earliest years than the belief that dumb animals think. Our only reason for this belief is the fact that we see that many of the organs of animals are not very different from ours in shape and movements. Since we believe that there is a single principle within us which causes these movements – namely the soul, which both moves the body and thinks – we do not doubt that some such soul is to be found in animals also. I came to realize, however, that there are two different principles causing our movements. The first is purely mechanical and corporeal, and depends solely on the force of the spirits and the structure of our organs, and can be called the corporeal soul. The other, an incorporeal principle, is the mind or that soul which I have defined as a thinking substance. Thereupon I investigated very carefully whether the movements of animals originated from both these principles or from one only. I soon perceived clearly that they could all originate from the corporeal and mechanical principle, and I regarded it as certain and demonstrated that we cannot at all prove the presence of a thinking soul in animals. I am not disturbed by the astuteness and cunning of dogs and foxes, or by all the things which animals do for the sake of food, sex and fear; I claim that I can easily explain all of them as originating from the structure of their bodily parts.

But though I regard it as established that we cannot prove there is any thought in animals, I do not think it can be proved that there is none, since the human mind does not reach into their hearts. But when I investigate what is most probable in this matter, I see no argument for animals having thoughts except this one: since they have eyes, ears, tongues and other sense-organs like ours, it seems likely that they have sensation like us; and since thought is included in our mode of sensation, similar thought seems to be attributable to them. This argument, which is very obvious, has taken possession of the minds of all men from their earliest age. But there are

¹ Lat. *contradictoria*, i.e. that whose denial involves a contradiction.

other arguments, stronger and more numerous, but not so obvious to everyone, which strongly urge the opposite. One is that it is more probable that worms, flies, caterpillars and other animals move like machines than that they all have immortal souls.

In the first place, it is certain that in the bodies of animals, as in ours, there are bones, nerves, muscles, animal spirits and other organs so arranged that they can by themselves, without any thought, give rise to all the movements we observe in animals. This is very clear in convulsions, when the mechanism of the body moves despite the mind, and often moves more violently and in a more varied manner than usually happens when it is moved by the will.

278 Second, since art copies nature, and people can make various automata which move without thought, it seems reasonable that nature should even produce its own automata, which are much more splendid than artificial ones – namely the animals. This is especially likely since we know no reason why thought should always accompany the sort of arrangement of organs that we find in animals. It is much more wonderful that a mind should be found in every human body than that one should be lacking in every animal.

But in my opinion the main reason for holding that animals lack thought is the following. Within a single species some of them are more perfect than others, as humans are too. This can be seen in horses and dogs, some of which learn what they are taught much better than others; and all animals easily communicate to us, by voice or bodily movement, their natural impulses of anger, fear, hunger, and so on. Yet in spite of all these facts, it has never been observed that any brute animal has attained the perfection of using real speech, that is to say, of indicating by word or sign something relating to thought alone and not to natural impulse. Such speech is the only certain sign of thought hidden in a body. All human beings use it, however stupid and insane they may be, even though they may have no tongue and organs of voice; but no animals do. Consequently this can be taken as a real specific difference between humans and animals.

279 For brevity's sake I here omit the other reasons for denying thought to animals. Please note that I am speaking of thought, and not of life or sensation. I do not deny life to animals, since I regard it as consisting simply in the heat of the heart; and I do not even deny sensation, in so far as it depends on a bodily organ. Thus my opinion is not so much cruel to animals as indulgent to human beings – at least to those who are not given to the superstitions of Pythagoras – since it absolves them from the suspicion of crime when they eat or kill animals.

Perhaps I have written at greater length than the sharpness of your intelligence requires; but I wished to show you that very few people have

yet sent me objections which were as agreeable as yours. Your kindness and candour have made you a friend of that most respectful admirer of all who seek true wisdom.

TO PRINCESS ELIZABETH, 22 FEBRUARY 1649

AT V

Several pieces of distressing news have come to me recently from various quarters, but it was the news of Your Highness's illness which affected me most deeply. And even though I have also learnt of your recovery, I still feel some remaining traces of sadness, which will not readily go away. The inclination to compose verses, which Your Highness felt during her illness, reminds me of Socrates, for according to Plato he had a similar desire while he was in prison. I believe that this desire results from a strong agitation of the animal spirits, which may completely disorient the imagination of those who lack a well-balanced mind, but which merely stimulates the imagination of those having a more stable mind, and makes them inclined to compose poetry. I take this tendency to be the mark of a mind which is stronger and more refined than usual.

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If I did not know your mind to have this quality, I would fear that you would have been extremely grieved on learning the fatal conclusion of the tragedies of England.¹ But I am certain that Your Highness, being accustomed to the adversities of fortune and finding her own life in great danger recently, would be less surprised and distressed to learn of the death of a close relation than if she had not herself previously suffered other afflictions. And although such a violent death seems more horrible than the death that comes in one's bed, yet properly regarded it is more glorious, happier and sweeter, and so the features of it which especially distress the common run of people should provide consolation for Your Highness. For there is great glory in dying for a reason which ensures that one is universally pitied, praised and missed by everyone with any human feeling. It is certain that without this ordeal, the clemency and other virtues of the late King would not be so well noticed or so highly esteemed as they are and will be in the future by those who read his history. I am certain also that the satisfaction he felt in his conscience during the last moments of his life was greater than the unhappiness caused by the resentment which is said to be the only melancholy passion that afflicted him. As for pain, I do not take that into account at all. For it is so short-lived that if murderers could employ fevers or any of the other illnesses which nature commonly uses to remove men from this world, we would have reason to think them crueller than those who kill with the blow of an axe. But I do not care to

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1 Princess Elizabeth's uncle, Charles I, was executed in London on 9 February 1649.

For the rest, I have never wished to expect anything of Fortune, and I have tried to conduct my life in such a way that she has never had any power over me. This has, it seems, made Fortune jealous of me, for she never fails to disappoint me whenever she has any chance to do so. I have experienced this in all three of the visits I have made to France since retiring to this country, but especially on the last one, which I had been commanded to make as it were by the King. To get me to make the journey, they sent me letters on parchment, sealed very elegantly, which contained a eulogy more extravagant than I deserve and the offer of a rather handsome pension. And those who sent these letters from the King also wrote and promised me much more as soon as I arrived there. But when I got there unexpected difficulties brought it about that, instead of seeing any sign of what had been promised, I found that one of my friends had had to pay for the letters to be sent to me, and I was obliged to pay him back. So it seems that I went to Paris merely in order to buy a parchment – the most expensive and most useless that I have ever held in my hands. But I do not mind that very much, for I would have regarded it simply as one of those unfortunate things that happen in public affairs, and I would still have been satisfied if I had found that my visit could have some use for those who had summoned me. What most disgusted me, however, is that none of them showed any sign of wishing to know any part of me other than my face. So I came to think that they wanted to have me in France as they would wish to have an elephant or a panther – that is, as a rare specimen and not as something that could be useful. 328

I do not imagine that anything similar will happen in the place where you are. But my lack of success in all the visits I have made for the last twenty years makes me fear that on this one I shall simply find myself waylaid by highwaymen who will rob me, or involved in a shipwreck which will cost me my life. Nevertheless this will not deter me, if you believe that this incomparable Queen still desires to examine my views, and that she can find the time to do so. If that is so, then I shall be delighted to be so fortunate as to be able to serve her. But if it is not so, and she merely had some curiosity about my views which has now passed, then I beg and urge you to arrange it so that, without displeasing her, I may be excused from making this voyage. 329

TO MORE, 15 APRIL 1649

AT V

I have received your welcome letter of 5 March at a time when I am distracted by so much other business that I must either write in haste this very minute, or put off replying for many weeks. I have decided on haste: I prefer to seem lacking in skill rather than in courtesy. 340
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Reply to the First Counter-Objections

'Some properties are prior to others.'¹

Being perceivable by the senses seems to be merely an extraneous description of perceptible things. Nor is it even an adequate description of the things in question; for if it refers to our senses, then it does not apply to the smallest particles of matter; if it refers to other senses such as we might imagine God to construct, it might well apply also to angels and souls. For sensory nerves so fine that they could be moved by the smallest particles of matter are no more intelligible to me than a faculty enabling our mind to sense or perceive other minds directly. Although in extension we easily understand the relation of parts to each other, yet I seem to perceive extension perfectly well without thinking of the relation of these parts to each other. You should admit this even more readily than I, since you conceive extension in such a way that it applies to God; and yet you deny any parts in him.

'It has not been shown that tangibility or impenetrability are essential properties of extended substance.'

If you conceive extension by the relation of the parts to each other, it seems that you cannot deny that each of its parts touches the other
 342 adjacent parts. This tangibility is a real property, intrinsic to a thing, unlike the tangibility which is named after the sense of touch. Moreover, it is impossible to conceive of one part of an extended thing penetrating another equal part without thereby understanding that half the total extension is taken away or annihilated; but what is annihilated does not penetrate anything else; and so, in my opinion, it is established that impenetrability belongs to the essence of extension and not to that of anything else.

'I say that there is another, equally genuine, extension.'²

At last we are in substantial agreement; there only remains a question of terms, whether this second sort of extension is to be called equally genuine. For my part, in God and angels and in our mind I understand there to be no extension of substance, but only extension of power. An angel can exercise power now on a greater and now on a lesser part of corporeal substance; but if there were no bodies, I could not conceive of any space with which an angel or God would be co-extensive. But to attribute to a substance an

1 Here and below the quoted phrases are from More's letter of 5 March (AT v 298). More had argued that body should be defined in terms of perceptibility rather than extension.

2 More had admitted that God and angels were not extended in the sense of being tangible and impenetrable, but maintained they were still genuinely extended.

extension which is only an extension of power is an effect of the preconceived opinion which regards every substance, including God himself, as imaginable.

Reply to the Second Counter-Objections

'Some parts of empty space would absorb others.'¹

I repeat here that if they are absorbed, then half the space is destroyed and ceases to be; but what ceases to be does not penetrate anything else; so impenetrability must be admitted in every space.

'This interval between worlds would have its own duration.'²

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I think it involves a contradiction to conceive of any duration intervening between the destruction of an earlier world and the creation of a new one. To relate this duration to a succession of divine thoughts or something similar would simply be an intellectual error, not a genuine perception of anything.

I have already replied to what follows by observing that the extension which is attributed to incorporeal things is an extension of power and not of substance. Such a power, being only a mode in the thing to which it is applied, could not be understood to be extended once the extended thing corresponding to it is taken away.

Reply to the Penultimate Counter-Objections

'God is positively infinite, that is, exists everywhere.'

I do not agree with this 'everywhere'. You seem here to make God's infinity consist in his existing everywhere, which is an opinion I cannot agree with. I think that God is everywhere in virtue of his power; yet in virtue of his essence he has no relation to place at all. But since in God there is no distinction between essence and power, I think it is better to argue in such cases about our own mind or about angels, which are more on the scale of our own perception, rather than to argue about God.

The difficulties that follow all seem to me to arise from the preconceived opinion which makes us too accustomed to imagine as extended all substances including those that we deny to be bodies, and which makes us too accustomed to philosophize intemperately about conceptual entities,

1 More had said that he could not conceive parts of extension changing places unless some parts of empty space absorbed others.

2 More wrote 'If God destroyed this world and much later created a new one out of nothing, the interval without a world would have its own duration which could be measured in days, years, and centuries' (see AT v 302).

344 attributing to *non-beings* the properties of a *being* or a *thing*. It is important to remember that non-being can have no true attributes, nor can it be understood in any way in terms of *part and whole*, *subject*, *attribute*, etc. And so you are perfectly right when you conclude that when the mind considers logical fictions it is 'playing with its own shadows'.

'A certain and finite number of states would be enough.'¹

It conflicts with my conception to attribute any limit to the world; and I have no measure of what I should affirm or deny except my own perception. The reason why I say that the world is indeterminate, or indefinite, is that I can discover no limits in it; but I would not dare to call it infinite, because I perceive that God is greater than the world, not in extension (for I have often said I do not think he is strictly speaking extended) but in perfection.

Reply to the Final Counter-Objections

'If you do this.'²

I am not certain that the continuation of my *Philosophy* will ever see the light of day, because it depends on many experiments which I may never have the opportunity to do. But I hope to publish this summer a small treatise on the passions, in which it will be seen how I think that even in us all the motions of our limbs which accompany our passions are caused not by the soul but simply by the machinery of the body. The wagging of a dog's tail is only a movement accompanying a passion, and so is to be sharply distinguished, in my view, from speech, which alone shows the thought hidden in the body.

'You could say the like about infants.'

Infants are in a different case from animals: I should not judge that infants were endowed with minds unless I saw that they were of the same nature as adults; but animals never develop to a point where any certain sign of thought can be detected in them.

Reply to the Questions

1. It conflicts with my conception, or, what is the same, I think it involves a contradiction, that the world should be finite or bounded;

1 More had claimed that a universe of determinate dimensions would suffice for Cartesian physics.

2 An allusion to Descartes' hope of explaining animals' behaviour by the construction of their organs, which More expected would appear in Parts v and vi of the *Principles*.

because I cannot but conceive a space beyond whatever bounds you assign to the universe; and on my view such a space is a genuine body. I do not care if others call this space imaginary and thus regard the world as finite; for I know what are the preconceived opinions that gave rise to this error.

2. When you imagine a sword going through the limits of the universe, you show that you too do not conceive the world as finite; for in reality you conceive every place the sword reaches as a part of the world, though you give the name 'vacuum' to what you conceive . . .

6. I have tried to explain most of what you here ask in my treatise on the passions. I will add only that I have not yet met anything connected with the nature of material things for which I could not very easily think up a mechanical explanation. It is no disgrace for a philosopher to believe that God can move a body, even though he does not regard God as corporeal; so it is no more of a disgrace for him to think much the same of other incorporeal substances. Of course I do not think that any mode of action belongs univocally to both God and his creatures, but I must confess that the only idea I can find in my mind to represent the way in which God or an angel can move matter is the one which shows me the way in which I am conscious I can move my own body by my own thought. (347)

Moreover, my mind cannot be more or less extended or concentrated in relation to place, in virtue of its substance, but only in virtue of its power, which it can apply to larger or smaller bodies . . .

TO [BRASSET], 23 APRIL 1649

AT V

No one has found it strange that Ulysses left the enchanted isles of Calypso and Circe, where he could enjoy every imaginable pleasure, and that he scorned the song of the sirens, in order to go and live in a rocky and infertile country. For this was his birthplace. But consider a man who, born in the gardens of Touraine, now resides in a country where there is conceivably more milk, if not so much honey, as in the land which God promised to the Israelites. Such a man, I confess, cannot find it so easy to decide to leave this land in order to live in a land of bears, rocks and ice. But this country is also inhabited by human beings, and governed by a Queen who possesses in herself more knowledge, intelligence and reason than all the learned churchmen and academics spawned by the fertile lands where I have resided. And so I am convinced that the beauty of a place is not necessary for wisdom, and that human beings are not like trees, which are never seen to grow so well when they are transplanted in soil less rich than the soil in which they had been sown. You will say that in return for the important and genuine news which you so kindly imparted to me, I am giving you only fictions and fables. But at present my solitude cannot yield 349 350

in the mountains of Auvergne, in order to discover whether mercury rises higher in a tube at the base of a mountain, and how much higher it is than on the top of the mountain. I should rightly expect to hear about this from him rather than from you, since it was I who advised him to do this experiment two years ago, and who assured him that I did not doubt it would be successful even though I had not done it myself . . .

AT V

TO CARCAVI, 17 AUGUST 1649

- 391 I am greatly obliged to you for the trouble you have taken to write and tell me about the success of M. Pascal's experiment with mercury,¹ showing that it rises less in a tube on a mountain-top than in one lower down. I had some interest in learning this because it was I who had asked him to try the experiment two years ago, and I had assured him of its success, as it agrees completely with my principles; without these principles he would not even have thought of it, since he was of the opposite opinion. Previously he sent me a brief publication in which he described his first experiments on the vacuum, and undertook to refute my subtle matter, and if you see him I would be glad if you will let him know that I am still waiting for this refutation, and that I shall receive it in good part, as I
- 392 have always received objections made against me that are not mere vilifications . . .

AT V

TO MORE, AUGUST 1649

- 402 When I received your letter of 23 July I was just on the point of sailing to Sweden.²
1. 'Do angels have sense-perception in the strict sense, and are they corporeal or not?'

I reply that the human mind separated from the body does not have sense-perception strictly so called; but it is not clear by natural reason alone whether angels are created like minds distinct from bodies, or like minds united to bodies. I never decide about questions on which I have no certain reasons, and I never allow room for conjectures. I agree that we should not think of God except as being what all good people would wish there to be if he did not exist.

Your counter-objection concerning the acceleration of motion, to prove that the same substance can occupy a larger or smaller place at different

1 See above, p. 328.

2 In April 1649 a Swedish admiral was sent to Descartes, and Chanut visited him in June to persuade him to accept the invitation to Sweden. Descartes left on 31 August.

3 A quotation from More's letter of 23 July 1649 (AT V 377).

times, is ingenious,¹ but there is a great disparity, in that motion is not a substance but a mode, and a mode of such a kind that we can inwardly conceive how it can diminish or increase in the same place. For each type of being there are appropriate notions, and in judging about any being we must use these notions instead of comparisons with other beings. Thus what is appropriate to shape is not what is appropriate to motion; and neither of these is what is appropriate to an extended thing. Remember that nothing has no properties, and that what is commonly called empty space is not nothing, but a real body deprived of all its accidents (i.e. all the things which can be present or absent without their possessor ceasing to be). Anyone who has fully realized this, and who has observed how each part of this space or body differs from all others and is impenetrable, will easily see that no other thing can have the same divisibility, tangibility and impenetrability. 403

I said that God is extended in virtue of his power, because that power manifests itself, or can manifest itself, in extended being. It is certain that God's essence must be present everywhere for his power to be able to manifest itself everywhere; but I deny that it is there in the manner of extended being, that is, in the way in which I just described an extended thing . . .

The transfer which I call 'motion' is no less something existent than shape is: it is a mode in a body.² The power causing motion may be the power of God himself preserving the same amount of transfer in matter as he put in it in the first moment of creation; or it may be the power of a created substance, like our mind, or of any other such thing to which he gave the power to move a body. In a created substance this power is a mode, but it is not a mode in God. Since this is not easy for everyone to understand, I did not want to discuss it in my writings. I was afraid of seeming inclined to favour the view of those who consider God as a world-soul united to matter. 404

I agree that 'if matter is left to itself and receives no impulse from anywhere' it will remain entirely still. But it receives an impulse from God, who preserves the same amount of motion or transfer in it as he placed in it at the beginning. And this transfer is no more violent for matter than rest is: the term 'violent' refers only to our will, which is said to suffer violence when something happens which goes against it. In nature, however, nothing is violent: it is equally natural for bodies to collide with each other, and perhaps to disintegrate, as it is for them to be still. I think that what

1 More had argued 'numerically the same motion can occupy now a larger body, now a smaller one, on your own principles'.

2 See *Principles*, Part II, art. 25: AT VIII A 53; CSM I 233.

causes you difficulty in this matter is that you conceive of a certain force in a quiescent body, by which it resists motion, as being something positive, namely as a certain action distinct from the body's being at rest; whereas in fact the force is nothing but a modal entity.

You observe correctly that 'motion, being a mode of body, cannot pass from one body to another'. But that is not what I wrote; indeed I think that motion, considered as such a mode, continually changes. For there is one
 405 mode in the first point of a body A in that it is separated from the first point of a body B; and another mode in that it is separated from the second point; and another mode in that it is separated from the third point; and so on. But when I said that the same amount of motion always remains in matter, I meant this about the force which impels its parts, which is applied at different times to different parts of matter in accordance with the laws set out in articles 45 and following of Part Two.¹ So there is no need for you to worry about the transmigration of rest from one object to another, since not even motion, considered as a mode which is the contrary to rest, transmigrates in that fashion.

You add that body seems to you to be 'alive with a stupid and drunken life'. This, I take it, is just a fine phrase; but I must tell you once for all, with the candour which you permit me, that nothing takes us further from the discovery of truth so much as setting up as true something of which we are convinced by no positive reason, but only by our own will. That is what happens when we have invented or imagined something and afterwards take pleasure in our fictions, as you do in your corporeal angels, your shadow of the divine essence, and the rest. No one should entertain any such thoughts, because to do so is to bar the road to truth against oneself.

AT V TO PRINCESS ELIZABETH, 9 OCTOBER 1649

429 Having arrived in Stockholm four or five days ago, I believe that one of my first duties is to renew the offers of my very humble service to Your Highness, so that you might know that the change of air and of country cannot change or diminish my devotion in any way. So far I have had the honour of seeing the Queen only twice; but already I think I know her well enough to venture to say that she has as much merit and more virtue than she is reputed to possess. Together with the generosity and majesty that shine forth in all her actions, one sees in her such sweetness and goodness that all who love virtue and have the honour of approaching her have no choice but to be utterly devoted to serving her. One of the first things she asked me was whether I had any news of you, and I did not hesitate to tell

1 *Principles*: AT VIII A 67; CSM I 244.