

439 response, because no falsity can occur in them. Hence when people say that a stick in water 'appears bent because of refraction', this is the same as saying that it appears to us in a way which would lead a child to judge that it was bent – and which may even lead us to make the same judgement, following the preconceived opinions which we have become accustomed to accept from our earliest years. But I cannot grant my critics' further comment that this error is corrected 'not by the intellect but by the sense of touch'.¹ As a result of touching it, we may judge that the stick is straight, and the kind of judgement involved may be the kind we have been accustomed to make since childhood, and which is therefore referred to as the 'sense' of touch. But the sense alone does not suffice to correct the visual error: in addition we need to have some degree of reason which tells us that in this case we should believe the judgement based on touch rather than that elicited by vision. And since we did not have this power of reasoning in our infancy, it must be attributed not to the senses but to the intellect. Thus even in the very example my critics produce, it is the intellect alone which corrects the error of the senses; and it is not possible to produce any case in which error results from our trusting the operation of the mind more than the senses.

10. My critics' remaining comments² 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.

440 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

1 Above p. 282. 2 *Ibid.*

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. 441

For example, I conceived of gravity¹ 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 442

¹ Lat. *gravitas*, literally 'heaviness'.

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.

443 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’.¹ 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

¹ Above p. 283.

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. 444

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.¹ 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 445 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

¹ Cf. p. 283.