

Substance Dualism

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I seek in this paper to defend the view that each of us on Earth consists of two parts - a physical body and a non-physical soul.

I begin by defining some technical terms. I define a substance as a thing, a component of the world. Thus tables, stars, and persons are substances. I define a property as a characteristic, which belongs to one substance (such as being yellow, or having a mass of two pounds), or is a relation between substances (such as being-taller-than or lying-between). I define an event as the instantiation of a property in a particular substance or substances at a particular time (such as this tie being brown at 4 pm on June 4th 2006, or Birmingham now lying between Manchester and London). A property of a substance is an essential property if necessarily that substance would not exist without that property. Thus occupying space is an essential property of my desk; it could not continue to exist and yet occupy no volume of space. The history of the world just is all the events which occur. It is this substance existing (that is having its essential properties) for a period, now acquiring this non-essential property, now losing that non-essential property, now acquiring this relation to another substance, now losing this relation, and then not existing any more. It includes for example the existence of this table for a certain period., the table being brown, then being painted red, then being six metres from that wall, then becoming only three metres from the wall; and so on until it exists no more. If you knew all the events which occurred, that is which properties were instantiated in which substances when, you would know the whole history of the world.

I shall understand by a mental property one to whose instantiation any substance in whom it is instantiated necessarily has privileged access on all occasions of its instantiation, and a physical property one to whose instantiation the substance concerned necessarily has no privileged access on any occasion of its instantiation. Someone has privileged access to whether a property P is instantiated in him in the sense that -given that he knows what it is for

something to have P (that is, has the concept of P)- whatever ways others have of finding out whether P is instantiated in him, it is logically possible that he can use, but he has a further way (by experiencing it) which it is not logically possible that others can use. A pure mental property may then be defined as one whose instantiation does not entail the instantiation of a physical property. I shall understand by a mental event one to whose occurrence the substance involved in it has privileged access ; and by a physical event one to whose occurrence there is no privileged access; and by a pure mental event one whose occurrence does not entail the occurrence of any physical event . Mental events (normally) involve the instantiation of mental properties, pure mental events (normally) involve the instantiation only of pure mental properties, and physical events (normally) involve the instantiation only of physical properties.²

Evidently - more evidently than anything else - there really are mental events, involving the instantiation of mental properties, as we know from our own experience. They include our perceptions (my seeing the desk) and intentional actions (my intentionally moving the desk). Others can find out what (probably) I am seeing or doing intentionally by studying my behaviour and brain. But I have a way of knowing about what I am seeing and what I am doing intentionally other than the ways available to the best other student of my behaviour or brain: I actually experience perceiving and intentionally acting. Neither of the two events which I have just mentioned are pure mental events, for they each include a physical component. My seeing the desk entails that the desk exists, and so does my moving the desk. Yet each of these mental events also includes a pure mental event as a component - my believing that there is a desk in front of me, and my trying to move the desk. Our mental lives consist of a succession of pure mental events. They include the pattern of colour in my visual field, pains and thrills, beliefs, thoughts and feelings, and the intentions which I try to realize through my body or in some other way. My being in pain at midday yesterday, or having a red image in my visual field, or thinking about lunch, or forming the intention of going to London - are also such that if others could find out about them by some method, I could find out about them by the same method. Others can learn about my pains and thoughts by studying my behaviour and perhaps also by studying my brain. Yet I too could study my behaviour - I could watch a film of myself; I could study my brain - via a system of mirrors and microscopes - just as well as anyone else could. But, of course, I have a way of knowing about my pains, thoughts, and suchlike other than those available to the best other student of my behaviour or brain: I actually experience them. But the events I have just been discussing contain no other event to which there is public access. Consequently, they must be distinct from brain events, or any other bodily events. A Martian who came

to earth, captured a human being, and inspected his brain could discover everything that was happening in that brain but would still wonder 'Does this human really feel anything when I stamp on his toe?' It is a further fact beyond the occurrence of brain events that there are pains and after-images, thoughts, and intentions. You would certainly not know the whole history of world if you knew only which physical events had occurred.

In making this point, I do not of course deny that most of my pure mental events are caused by my brain events. Clearly most of the passive mental events - the ones which we find ourselves having, sensations, thoughts, beliefs and desires - are caused at least in part by brain events, themselves often caused by further bodily events. For example, a toothache is caused by a brain event itself caused by tooth decay. But plausibly some mental events are caused, at least in part by other mental events- plausibly often a thought that such-and-such is the answer to a mathematical problem is caused in part by thoughts that certain other mathematical propositions are true. And it certainly seems that bodily events are often caused (via brain events) by mental events -my closing my books is often caused by a decision to finish working.

To know the whole history of the world you would need to know not merely which properties had been instantiated, but in which substances they had been instantiated - who had the toothache or the thought. I define a mental substance as a substance to whose existence that substance necessarily has privileged access, and a physical substance as a substance to whose existence that substance necessarily has no privileged access, that is a public substance. Since having privileged access to anything is itself a mental property, and some one who has any other mental property has that one, mental substances are just those for which some mental properties are essential. And we may define a pure mental substance as one without physical parts and for which only pure mental properties are essential (together with any properties entailed by the possession of pure mental properties) (Such a pure mental substance may have, contingently - that is, non-essentially - also physical properties: and also have -contingently- physical substances among its parts. That is, it could gain or lose such physical properties or parts without ceasing to exist..) Now I and my hearers are human beings, persons of a particular kind. A person would not exist unless he had a capacity for a mental life (a capacity to have sensations, thoughts etc.); and having such a capacity is itself a mental property (one to the instantiation of which in a subject he has privileged access.) Hence persons are mental substances, although as far as anything I have said so far is concerned, they might need some physical properties or parts (e.g. a body), as well as a mental property, in order to exist. I shall be arguing in due course that not merely are we mental substances but

we are pure mental substances. That does not mean that we do not have bodies, only that we do not need them in order to exist.

Now what constitutes a substance being the same substance as a previous substance? What constitutes this desk being the same desk as was here last week? First, the two substances have to belong to the same species of substance. This desk can only be the same substance as some substance last week if that one was also a desk. This person can only be the same as that person if they are both persons. Secondly (dependent on the kind of substance involved) they have to have all or most of the same parts, or parts obtained by gradual replacement from the previous parts. Parts themselves are also substances. Different species of substances belong to different genera (different wider kinds), such as artefacts (things such as desks which people make), organisms (plants and animals), simples (things without parts), and what philosophers call mereological compounds (lumps of stuff). For substances of different genera different numbers of parts have to be retained in order for the substance to be the same substance. Artefacts have to have most of the same parts; for my desk to be the same as the desk in my study last week it has to have most of the same parts. Organisms, such as plants, may over the course of time have all their parts replaced, but the replacement has to be gradual - now this part, now that part, and the new parts have to play somewhat the same role in the organism as the replaced parts did. At the other extreme, 'simple' substances which are not composed of separable parts and thus in effect have just one part, have to continue to have that part; plausibly electrons are like this. And by definition of 'mereological compound', mereological compounds have to have all the same parts.

So what constitutes the identity of a human person? The philosophically most popular theory is - we are the same person if we have enough of the same physical parts (or ones obtained by gradual replacement) connected with instantiated mental properties: my being a person consists in me having mental properties, my being the same person as some person last week consists in me having more-or-less the same physical parts. One may think that certain parts are more important than others - a person needs the same brain, or most of the same brain in order to continue to exist. But the main point on this theory is that my continuing to exist consists in some number of particular physical parts of me continuing to exist, connected with mental properties. This theory however must be mistaken, because knowing what has happened to all physical parts of me (whatever your particular account of which of them are crucial), won't always show you what has happened to me. Some particular fate for all the physical parts is compatible with me having either of two very different fates.

Let me illustrate this with the example of brain transplants. The brain consists of two hemispheres and a brain stem. There is good evidence that humans can survive and behave as conscious beings if much of one hemisphere is destroyed. Now imagine my brain (hemispheres plus brain-stem) divided into two, and each half-brain taken out of my skull and transplanted into the empty skull of a body from which a brain has just been removed; and there to be added to each half-brain from some other brain (e.g. the brain of my identical twin or a clone of me) whatever other parts (e.g. more brain-stem, and some of the other hemisphere) are necessary in order for the transplant to take and for there to be two living persons with lives of conscious experiences. I cannot see that there are any insuperable theoretical difficulties standing in the way of such an operation. (Indeed that is a mild understatement - I fully expect it to be done one day.) We are, therefore, entitled to ask a further question - if this operation were done and we then had two living persons, both with lives of conscious experiences, which (if either of them) would be me? Probably both would to some extent behave like me and claim to be me and to remember having done what I did; for behaviour and speech depend, in large part, on mental states themselves caused by brain-states, and there are considerable overlaps between the properties of the two hemispheres of any one human being (the 'information' carried by them) which give rise to those mental states. But both persons would not be me. For if they were both identical with me, they would be the same person as each other (if *a* is the same as *b*, and *b* is the same as *c*, then *a* is the same as *c*) and they are not. They now have different experiences and lead different lives. There remain three other possibilities: that the person with my right half-brain is me, or that the person with my left half-brain is me, or that neither is me. It may be that cutting the brain stem destroys the original person once and for all, and that, although repairing the severed stem creates two new persons, neither of them is me. You may think that it is just a matter of definition which of these three possibilities the case ; you can say what you like -there would be no real difference. But it cannot be a matter of definition whether I survive a brain operation and what my subsequent life will be like. Yet even after the experiment is done, no one (not even I, if I survive) can know for certain whether I have survived and what then is my fate. Even if one subsequent person resembles the earlier me more in character and memory claims than does the other, that one may not be me. Maybe I will survive the operation but be changed in character and have lost much of my memory as a result of it, in consequence of which the other subsequent person will resemble the earlier me more in his public behaviour than I will .

Some philosophers have supposed that the result of the operation would be that each of the later persons would be partly me. I

cannot myself make much sense of this supposition. But even if this is a possible result of the operation, it cannot be a necessary truth that the operation will have this result, because the history of all the physical bits and all the mental properties associated with them is compatible with both subsequent persons not being only partly me. It is still a possibility that, just as the resulting person is fully me if my heart is replaced, so one of the resulting persons is still fully me even if half his brain is replaced. If however we include both subsequent persons being partly me as a possible result of the operation, we would now be ignorant about which out of four (rather than three) possible results to the operation had in fact occurred.

Derek Parfit has claimed that what matters in such cases is not identity (that is, which -if any - later person is me), but what he calls 'survival', which is for Parfit a matter of degree. I 'survive' on Parfit's definition to the extent to which the mental life of some later person involves 'apparent memories of' and is caused by my mental life. What matters, according to Parfit is whether some later person 'apparently remembers' my past experiences and is caused to do so by those experiences.. But, as Parfit would, I think, acknowledge, his view is counter-intuitive. The mere existence of a later person whose mental events are in large part caused by and involve memory of my past life is not what I hope for, when I hope to survive an operation (in the normal sense of 'survive'). I want that person to be me, even if I cannot remember much of my previous life. It would need some very strong philosophical arguments to show that my normal hope is incoherent and so we should make do with hoping for Parfitian survival. The two such arguments normally deployed are so weak as to be hardly worth calling arguments. There is the argument that in such a situation we would never be able to discover which person was me. But if so, so what? Humans are not omniscient. Why should we expect them to be able to discover this? And then there is the argument that, if a person being me is all-or-nothing, as we take away more and more of my neurones and replace them with neurones from elsewhere, just replacing one last neurone would make someone to cease to be me. True, but so what? Quantum theory and Chaos theory have taught us that very small causes can produce very large effects.

Reflection on this thought experiment shows that, however much we know about what has happened to my brain - we might know exactly what has happened to every atom in it - and to every other physical part of me, we would not know what has happened to me. And note that the extra truth is not a truth about what kind of mental life is connected to each brain. It is not a truth about mental properties, about what thoughts and feelings and purposes the revived person has. Rather, the extra truth, the truth about whether I have survived, is a truth about WHO has those thoughts and feelings,

that is in which substance those properties are instantiated. And, since the continuing existence of a substance involves continuity of its parts (either having the same parts or ones obtained by gradual replacement of parts), and since mere knowledge of what has happened to every physical part of me does not provide the answer to whether I have survived, my survival must be (at least in part) a truth about what has happened to a non-physical part, that is a pure mental substance. So there must be more to me than the matter of which my body and brain are made, a further essential non-physical part whose continuing in existence is necessary for the brain (and so body) to which it is connected (that is causally interacts with) to be my brain (and body).

All that I have shown so far is that the survival of a non-physical part (my soul) is necessary for my survival; but that leaves open the possibility that some physical part or other of my previous body-and since it is the brain which sustains my mental life, it surely has to be a brain part- has to be combined with my soul in order for me to survive. But now consider another thought experiment. Suppose I have a severe brain disease affecting the right brain hemisphere. The only way to keep the body functioning is to replace this hemisphere. So the doctors remove my current right-hemisphere and replace it by a right hemisphere taken from my clone or identical twin, and join it to my left hemisphere. Alas, the disease spreads to the left hemisphere, and so that too has to be replaced. Have I survived or not? Again, who can say? But clearly my survival is perfectly compatible with all the physical parts which originally composed my body being destroyed. Perhaps you may suggest that I survive if and only if the replacement of bits is done gradually, so that for example the new right hemisphere has to interact with the old left-hemisphere for at least two minutes before the latter is replaced, if I am to survive. But while that might be physically necessary for my survival, to suppose that a 2-minute as opposed to a mere 1-minute contact of new parts with old is what *constitutes* my survival is absurd. It's not logically necessary for my survival, though it might be evidence of it. Whether I survive is a further truth about the world additional to truths about what has happened to all the physical bits of me, and quite apart from which mental properties are associated with those physical bits. And so it must be a truth about what happens to a non-physical part of me which I am calling my soul. I am my soul plus whatever brain (and body) it is connected to. Normally my soul goes when my brain goes, but in unusual circumstances (such as when my brain is split) it is uncertain where it goes. So long as I continue to have thoughts and feelings and purposes, I have survived any operation - whatever happens to any particular physical parts of me. So my soul is the essential part of me - its survival is necessary and sufficient for me to survive.

But don't I have to have some brain or body in order to exist? Maybe, given the way things work in the world at present (that is, given the laws of nature which currently operate in the world), that is physically necessary. Souls can exist and function only when connected to a functioning brain. But the issue is whether this is absolutely or metaphysically necessary, necessary whatever the laws of nature are. I have a body if and only if there is some physical substance with which I interact causally in certain ways. But there is no incompatibility in supposing that these connections with a body are broken totally at an instant and yet I go on having thoughts and feelings; and maybe even come to have the ability to make a difference to the world and learn about it without having to do so through one particular physical substance. But a substance can only continue to exist if its parts are the same or replaced only gradually, and so if its physical parts are destroyed at an instant it can only continue to exist if a non-physical part of it continues to exist and if the existence of that part is sufficient for its existence. My argument above shows that I have now already a non-bodily part, my soul- whose continuing in existence is sufficient for my continuing in existence.

It follows that my body is only a contingent part of me. Since my having physical properties (e.g. weight and size) entails my body having these properties, and my having pure mental properties entails only the existence of my soul, it follows that physical properties belong to me in virtue of belonging to my body and pure mental properties belong to me in virtue of belonging to my soul. (Impure mental properties belong to me in virtue of my soul having certain pure mental properties and my body having certain physical properties, and the instantiation of properties of one kind causing the instantiation of properties of the other kind.) What applies to me applies to all other humans and any other conscious beings there may be. The full story of the world will include what happens to each of our two parts - it will include the thoughts and feelings of souls, as well as the weights and volumes of bodies (as well as causal relations between these).

My arguments so far have depended on claims that certain events are compatible or incompatible with other events, e.g. me surviving is compatible with my body being destroyed; or on claims that certain events involve others, e.g. that every part of me being destroyed at an instant involves me being destroyed. How do I know which events are compatible with, and which events involve other events? In so far as events are described in ways which convey the essence of the substances, properties etc involved, it is a pure a priori exercise to detect whether the description of one event is compatible with or involves the description of another event. When we know what we are talking about, mere thought can show what that involves. The compatibility is logical compatibility, the incompatibility

is logical incompatibility, the involvement is entailment. A proposition p is logically compatible with a proposition q , if and only if $(p \& q)$ entails no contradiction; p is logically incompatible with q if and only if $(p \& q)$ entails a contradiction. You can show that some supposition entails a contradiction by deducing the contradiction. You can show that 'A is taller than B, and B is taller than C, and C is taller than A' entails a contradiction by deducing from it '(A is taller than B) and not (A is taller than B)'. That some supposition entails no contradiction is evidenced by no one yet having drawn a contradiction out of it, and by the fact that we can apparently make sense of the world being the way the supposition supposes, that is, we can postulate a more detailed supposition which is more evidently logically possible (that is, more evidently entails no contradiction) and entails the supposition in question. To take an example far away from our present concerns, how could one show that there being more than one space is logically possible? A space is a collection of places at some distance in some direction from each other? There would be two spaces if there are two collections of places, members of each collection being at some distance in some direction from each other but not at any distance in any direction from any member of the other collection. I can show that this is logically possible only by describing such a world in detail in a comprehensible way (as for example in C.S. Lewis's Narnia stories), and by trying and failing to derive a contradiction therefrom.

But there is more to the compatibility of events than logical compatibility in the stated sense, and events may involve other events without there being the kind of entailment just described. Thirty five years ago Kripke⁴ and Putnam⁵ drew our attention to the fact that substances (properties, events etc) may be picked out by referring expressions which are rather uninformative as to the nature of what is picked out. In that case, although there may be a truth that the object picked out could or could not coexist with some other object, or involve the existence of some other object, you would need first to discover empirically (a posteriori) more fully what had been picked out before you could know this.

Consider the proposition 'Hesperus is not Phosphorus' as uttered by early Greeks, where Phosphorus is 'the morning star', the bright planet (as we now know it to be) which often appears before sunrise in the morning sky, and Hesperus is 'the evening star', the bright planet which often appears after sunset in the evening sky. We know that these planets are the same planet; the early Greeks did not know this. Given what 'Hesperus' picks out and what 'Phosphorus' picks out, 'Hesperus is not Phosphorus' not merely is not, but could not be true - since 'Hesperus' and 'Phosphorus' pick out the same planet; and a thing must be identical with itself. Hesperus could not exist without Phosphorus existing, and conversely. Yet 'Hesperus is not Phosphorus' entails no contradiction - merely under-

standing the proposition would not enable you to see that what it asserted could not be the case. So even if being me does not entail being embodied (that is, there is no contradiction in 'I exist without my body')- an opponent may suggest - maybe it is not possible for me to exist without my body existing because the existence of me involves the existence of my body. Even though there is no logical entailment of propositions here, the nature of what is in fact picked out by 'me' and 'my body' has this consequence- it may be suggested. 'I cannot exist without my body' would be what philosophers call an a posteriori metaphysical necessity, a necessity as hard as the normal a priori logical necessity, but one which can only be discovered by empirical investigation (e.g into the nature of Hesperus or me), not by pure reasoning.

Metaphysical a posteriori necessity arises if you can know how to use the designating expressions ('Hesperus' and 'Phosphorus') on some occasions (e.g. when the object exhibits certain features) without knowing the nature of what is picked out, and so without knowing what constitutes being the same object on other occasions and so without being able to recognize that object on other occasions. We use 'Hesperus' to pick out a planet when it has the characteristic of appearing after sunset in the evening sky; but for any planet to be that planet it has to have (roughly) the same parts, that is to be made of the same matter. But you can refer to it without having discovered of what matter it is made and so without being able to identify it on other occasions and so in ignorance of whether it is the same planet as Phosphorus. Some of the other words which we use for picking out substances or properties or substance-kinds (e.g. 'water' as used in the eighteenth century) also pick out something as of that kind in virtue of superficial properties (e.g. being the stuff in our rivers and seas), when what constitutes being that substance or property or substance-kind is a matter of the properties which underlie the superficial ones (e.g. being made of molecules of H_2O) which may be present when the superficial ones are not. So, in ignorance of the chemical constitution of water, we would not be able to say whether or not sometimes stuff found elsewhere than in our rivers and seas is water or not. Let's call such words as 'water' (as used in the eighteenth century) or 'Hesperus' (as used by early Greeks) uninformative designators.

However, most of the words we use to pick out properties (e.g. 'green' or 'square'), as opposed to substances, are not of this character. What makes a property the property of being green is what is visible on the surface and not what underlies the visible; and in consequence of that we can (when favourably positioned, faculties in working order, and not subject to illusion) recognize when some new surface is green and when it is not merely in virtue of knowing what the word 'green' means. Such words I shall call informative designat-

ors. When all our referring expressions are informative designators, we know the essence of what is being designated and hence we can identify new instances of the objects. In such cases mere a priori reflection will tell us which events are compatible with and which events involve which other events; the compatibility is then the logical possibility of co-occurrence, and involvement is logical entailment. Metaphysical necessity and possibility is in these cases just a matter of logical necessity and possibility. Mere a priori reflection will tell us that nothing can be red and green all over, or square and round at the same time. A priori reflection is not of course infallible, but the possibility of mistake does not arise from ignorance of some recondite empirical fact, but from a lack of imagination preventing us from seeing a logical entailment or incompatibility.

Now what sort of designator is 'I' (or 'Richard Swinburne', as used by me)? These seem to be informative designators. If I know how to use these words, I can't be mistaken about when to apply them -when favourably positioned, with faculties in working order, and not subject to illusion; and when I am as favourably positioned as possible and considering applying these words to a person in virtue of his being a subject of experience, no mistake at all is possible. I am in Shoemaker's phrase 'immune to error though misidentification'.⁷ I cannot recognize that some experience (e.g. pain) is occurring and wonder whether it is mine or not, in the way that I can know how to use the word 'Hesperus', and yet wonder whether the planet at which I am looking is Hesperus.. My knowledge of how to use 'I', like my knowledge of how to use 'green' and 'square' means that I know the nature of what I am talking about when I use the words. Mere a priori reflection will show what my existence involves and with what it is compatible. Hence there is no possibility that what I am picking out by 'I' has an underlying essence which requires me to be embodied. My opponent is misguided in trying to make a comparison to the Hesperus/Phosphorous situation. Hence, since my existing does not entail my body existing, it follows that my existing does not involve my body existing; I am therefore a pure mental substance, essentially a soul. And since I can exist without my body merely in virtue of being a person, other people can do the same. Each of us is a pure mental substance; we may temporarily have physical properties and so a body and it may be good for us that we do. But our existing does not as such involve our having a body.

Of course I can still misremember what I did in the past, and indeed misremember how I used the word "I" in the past. But this kind of problem arises with every claim whatsoever about the past. "Green" is an informative designator of a property, but I may still misremember which things were green and even what I meant by "green" in the past. The difference between informative and uninformative designators is that (when my faculties are in working or-

der, I am favourably positioned and not subject to illusion) I can recognize which objects are correctly picked out at the present time by informative designators, but not necessarily when they are picked out by uninformative designators (in the absence of further information). And so I know what a claim about the past or future amounts to when it is made by informative designators, but not when it is made by uninformative designators. I know what would constitute a future or past experience being mine, what it is for some future or past person to be me. Not so with Hesperus or water. I do not know what would constitute past or a future substance being water or Hesperus if I am merely in the position of the "water" user in the eighteenth century, or the "Hesperus" user in the early ancient world.

For me to exist, I need only to have some pure mental properties. I do not need to have any particular mental properties. I pick myself out as the subject of certain currently experienced mental properties. But I can suppose myself to have now some quite different mental properties instead. And by an argument of the above type, since it appears that this supposition involves no contradiction, it follows that I do not have to have the mental properties I do have in order to be me; and it follows more generally that I do not have to have any of the mental (or physical) properties which I have had during my life but could have had quite other properties instead, and still be me. And a person having all the mental and other properties which I have is not enough to guarantee that that person is me. For we can conceive of a world exactly like our world in all qualitative respects in which someone with (qualitatively) the same life history as me lectures to people who have (qualitatively) exactly the same life history as you, and yet you and I do not exist. You can see this if you imagine that before this world exists you are shown a film of what is going to happen in it; and the film in some way shows you what will be the mental lives of the people in the world. You would still not know - are you going to live one of the lives in this world? And if so, which one? So being me does not entail having any of the particular mental or physical properties which I have; nor does having all the mental and physical properties which I have entail being me. Each person, and so the essential part of each person - his or her soul, has a 'thisness' a uniqueness which makes it the soul it is quite apart from the particular mental properties it has (the life it has led).

A body is a physical substance which is mine if and only if: (1) I am able to move it as a basic act (that is without needing to do something else intentionally in order to make it move); and (2) it is a substance, whose changing states (caused by changes elsewhere in the physical world, e.g via rays of light or sound) is the means by which I learn about the rest of the world; and (3) whose states may cause me pain or pleasure. Finite creatures have limited basic powers and means of knowledge acquisition, and the smallness of our bodies

provides those limits. And if we are to interact with other people we need bodies, since they provide us with a public presence where others can get hold of us and we can get hold of them. Without bodies we would be solitary creatures. Hence the goodness of the Christian doctrine of the resurrection of the body. But what makes a body my body is its connection with my soul; and it is only the continuing existence of my soul after my death which would make possible the resurrection of a body which is mine; that would consist in a body being joined again to my soul.

NOTES

1. This paper defends a view developed at length in my book *Mind, Brain, and Free Will*, Oxford University Press, 2013.
2. My definitions of 'mental' and 'physical' properties have the consequence that there are some properties which are neither mental nor physical - let us call them 'neutral properties'. They include formal properties (e.g. 'being a substance') and disjunctive properties (e.g. 'being in pain or weighing ten stone'). The existence of such properties leads to my including the 'normally' in my definitions of the different kinds of event. For although all events which involve only the instantiation of (pure) mental properties are (pure) mental events, there are (pure) mental events which involve the instantiation of neutral properties, e.g. the event of me being-in-pain-or- weighing-ten-stone.
3. Derek Parfit, *Reasons and Persons*, Clarendon Press, 1984, ch 12.
4. S. Kripke, 'Identity and Necessity' in (ed.) M.K. Munitz, *Identity and Individuation*, New York University Press, 1971; and 'Naming and Necessity' in (ed.) D. Davidson and G. Harman, *Semantics of Natural Language*, D. Reidel, 1972.
5. H. Putnam, 'The Meaning of "meaning"', republished in his *Mind, Language, and Reality*, *Philosophical Papers*, vol. 2, Cambridge University Press, 1975.
6. More precisely, if you have linguistic knowledge of the rules for using an informative designator of an object (substance, property, or whatever), then you can apply it correctly to any object if and only if (1) you are favourably positioned, (2) your faculties are in working order, and (3) you believe that (1) and (2). Thus 'green' being an informative designator means that someone who knows what 'green' means can apply it to an object correctly when (1) the light is daylight and he is not too far away from the object, (2) his eyes are in working order, and he believes that (1) and (2). Someone is subject to illusion if *either* {(1) and (2)} and not-(3) *or* {either not-(1) or not-(2)} and (3). By contrast, (the designator words having their pre-modern senses) however favourably positioned you are and however well your faculties are working, you may not be able to identify correctly some liquid not in our rivers and seas as 'water', or some planet not in the evening sky as 'Hesperus'.
7. Sydney Shoemaker, 'Introspection and the Self' in (ed.) Q. Cassam, *Self-Knowledge*, Oxford University Press, 1994, p. 82.