In this paper I argue that a human on Earth consists of two interconnected parts (two substances, in philosophical terminology) - body and soul. The body is material, the soul is immaterial. The soul is the essential part of the person; it is the continuing of my soul which constitutes the continuing of me, as argued in my *The Evolution of the Soul*. At death my body ceases to function, and gradually decays. If there is a God, as I believe, what happens to the soul depends on his will; and I believe that he has revealed that normally he will keep it in existence for ever. I do not know what would happen to the soul if there were no God. I can't prove to you in twenty minutes, as well as everything else, that there is a God and so that the soul will go on existing forever. But I can, I hope, prove to you that there is a soul for something to happen to.

I begin by introducing some philosophical terminology. I understand by a 'substance' a component of the world which interacts causally with other components of the world and which has a history through time. Tables and chairs, stars and galaxies, neurones, and persons are substances. Substances have intrinsic properties - such as being square or yellow, or having such and such an electric potential; and also relational properties (properties which connect one substance with another), such as being taller than, or lying between. I understand by an 'event' the instantiation of a property in a particular substance or particular substances at particular times - such as this tie being now green, or this neurone firing at 3 p.m.; or Birmingham lying between London and Manchester in the last century. The history of the world is just the sequence of all the events which have happened. If you know all the events which have happened (which properties were instantiated in which substances when), you know all that has happened.

Properties and events may be physical or mental. I shall understand by a 'physical property' one such that no one subject is necessarily better placed to know that it is instantiated than is any other subject. Physical properties are publicly accessible. Physical events are those which involve the instantiation of physical properties. This tie being green now is a physical event because not only I, but anyone who wants to, is equally able to find out the colour of my tie. Likewise, this neurone firing at 3 p.m., or John being now taller than George are physical events. A mental property is one about which one person is necessarily in a better position to know than is anyone else. Mental events are events which involve the instantiation of mental properties. I understand by a 'material substance' one which occupies a region of space, and by an 'immaterial substance' one which does not occupy a space. Now, in the history of thought there have been three views on the mind/body problem, the problem of the relation between a human's mental life of thought and sensation, and the physical events in and around his body.
The first view, which I shall call 'hard materialism', claims that the only substances are material objects, and persons (including humans) are such substances. A person is the same thing as his body (and his brain is the same thing as his mind). The only events which occur are physical events, viz, ones which consist in the instantiation of physical properties in material objects. There are no mental events in the sense in which I have analysed this notion; for there are no events distinct from physical events to which the subject has privileged access. Hard materialism seems to me obviously false. There really are events which humans experience and which in consequence they can know about better than does anyone else who studies their behaviour or inspects their brain. My sensations, for example - my having a red after-image or a smell of roast beef - are such that I have an additional way of knowing about them other than those available to the best student of my behaviour or brain; I actually experience them. Consequently they must be distinct from brain events, or any other bodily events. A neurophysiologist cannot observe the quality of the colour in my visual field, or the pungency of the smell of roast beef which I smell. A Martian who came to Earth and captured a human being and inspected his brain, could discover everything that was happening in that brain but would still wonder whether a human really feel anything when his toe is stamped upon. There must be mental events in addition to physical events.

The second view in the history of thought about the mind/body problem is the view which I shall call 'soft materialism'. It is often called 'property dualism'. Soft materialism agrees with hard materialism that the only substances are material objects, but it claims that some of these (that is, persons) have mental properties which are distinct from physical properties. Brain-events certainly often cause mental events and vice versa. Neurons firing in certain patterns cause me to have a red after-image. And - in the other direction - trying to move my arm causes the brain-events which cause my arm to move. These are causal relations between distinct events - just as the ignition of gunpowder is a distinct event from the explosion which it causes.

The basic difficulty, however, with soft materialism as with hard materialism, is that there seem to be more truths about the world than the doctrine says that there can be. Hard materialism says that you have told the whole story of the world when you have said which material objects exist and which physical properties they have. But, as we have seen, there is also the issue of which mental properties are instantiated. Soft materialism says that you have told the whole story of the world when you have said which material objects exist and which properties (mental and physical) they have. However, full information of this kind would still leave you ignorant of whether some person continued to exist or not. Knowledge of what happens to bodies and their parts will not show you for certain what happens to persons. Let me illustrate this with the example of brain transplants.

The brain, as you will know, consists of two hemispheres, and a brain-stem. There is good evidence that humans can survive and behave as conscious being if much of one hemisphere is destroyed. Now suppose my brain (hemisphere plus brain-stem) was 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) whatever other parts (e.g. more brain stem) are necessary in order for the transplant to take and for there to be two living persons with lives of conscious experiences. Which of these two resulting persons would be me? Probably both would to some extent behave like me and make my memory claims; for behaviour and speech depend, at any rate in very large part, on brain-states, and there is very considerable overlap between the _information_ carried by the two hemispheres which gives rise to behaviour and speech. 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. But we cannot be certain which holds. It follows that that mere knowledge of what happens to bodies does not tell you what happens to persons.

It is tempting to say that it is a matter of arbitrary definition which of the three possibilities is correct. But this temptation must be resisted. There is a crucial factual issue here - which can be shown if we alter our thought experiment a little. Suppose that I am captured by a mad surgeon. He explains that he is going to perform this operation on my brain, in consequence of which there will be two living persons, one made partly out of my right brain hemisphere and the other made partly out of my left brain hemisphere. He announces that he will give one of these later persons ten million dollars and that he will subject the other one to torture. He allows me to choose which of the later persons will get ten million dollars and which will be tortured; that is, to choose whether the person who has my left half-brain will become a rich man while the one who has my right half-brain will suffer, or whether if will be the other way around. How ought I to choose in order to become rich? It is evident that whether I shall survive the operation and whether my life will be happy or sad are factual questions. (Only someone under the grip of some very strong philosophical dogma would deny that), and yet, as I await the transplant and know exactly what will happen to my brain, each of the two choices would be very risky - if I choose that the person with my left half-brain will be rewarded, I do not know whether it will be me; and also, if I choose that the person with my right half-brain will be rewarded, I do not know if that person will be me.

And even after the operation no one will know for certain whether I have survived, or which of the later persons is me. 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've survived the operation but am changed in character and have lost much of my memory as a result of it, in consequence of which the other subsequent person resembles the earlier me more in his public behaviour than I do. And even if a fourth possibility, that they are both to some extent me, were (despite its apparent incoherence) correct, neither science nor philosophy could show that to us for certain, for all the evidence which could ever be obtained would be compatible with the other possibilities as well. Reflection on this thought experiment shows that however much we come to know for certain about what has happened to my brain (and other parts of my body), and however
much we come to know for certain about which mental properties are instantiated in which subsequent persons, we would not know for certain what has happened to me. What we would not know is which substance each of the later persons is. But since we do know - we may suppose - what has happened to each atom of my body, I must be different from my body. I must have a further essential immaterial part whose continuing in existence makes the brain (and so body) to which it is linked my brain (and my body), and to this something I give the traditional name of '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. And, I should add, it follows that it is uncertain whether it will return to the brain of my body if it is frozen for one hundred years (and inevitably damaged by the freezing process) - someone may come to life when my body is unfrozen, but it may not be me.

There is a fashionable way of attempting to avoid this conclusion by pointing out that we do not always know the essence of that which we pick out by our referring expressions. The early Greeks called the planet which appeared in the evening sky 'Hesperus', and the planet which appeared in the morning sky 'Phosphorus', but they did not know that these planets were the same planet. In their ignorance they would then have supposed various suppositions to be coherent which in fact would be metaphysically impossible (i.e. impossible for the same reason as that it is impossible that a self-contradiction be true) - for example, Hesperus and Phosphorus being totally present in different regions of the sky at the same time. Might it not be the case that we do not know to what we are referring by 'I' or 'Swinburne'; and that in fact we are referring to a certain part of the brain - let's say the pineal gland; I am my pineal gland, and science will eventually discover this. The comparison to the situation of Hesperus and Phosphorus is not, however, apt. Certain words are indeed used without a full understanding of what is being referred to, but for the words to have a meaning there has to be an understanding of the kind of thing being referred to and what constitutes that thing continuing to exist; and so what science would need to discover in order to discover that a future object was that object. The Greeks used _Hesperus_ to refer to a material object, and understood that continuing to exist would amount to the matter of which Hesperus was made continuing to exist stuck together (spatio-temporal continuity being evidence of sameness of matter). However the split brain experiment brings out that 'I' and 'Swinburne' are not used to pick out a material object, such as the pineal gland. For if they were, knowledge of what happened to all the atoms of my body (plus the mental properties associated therewith) would entail a conclusion about what happened to me, in the way that knowledge of what has happened to all the atoms of Hesperus entails a conclusion about what has happened to Hesperus. But knowledge of what has happened to all the atoms of my body, etc., does not entail that.

Nor is any of the matter of my present brain (metaphysically) necessary for my present existence. For clearly the world could (it is metaphysically possible) have been different in the respect that, while just the same pattern of physical and mental properties were instantiated (and so someone with just this kind of body talked to an audience with just these kinds of bodies), one of you could have had my body and I could have had yours. A full description of the world would need to include a description not merely of what
bodies there were but of who had them; and that means a fully non-bodily 'who'. The concept of me is the concept of a soul, and since undoubtedly I exist and so there is something satisfying that concept, I am essentially a soul, an immaterial substance distinct from my body. Hence, at death, when the soul is separated from the body, it is possible that it continues to exist. So if there is a God, he can, if he so wishes, make it continue to exist either on its own or by connecting it again to its old body or to a new body, if its previous body has been annihilated.