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Why Our Identity Is Not What Matters

Derek Parfit

I enter the Teletransporter. I have been to Mars before, but only by the old method, a space-ship journey taking several weeks. This machine will send me at the speed of light. I merely have to press the green button. Like others, I am nervous. Will it work? I remind myself what I have been told to expect. When I press the button, I shall lose consciousness, and then wake up at what seems a moment later. In fact I shall have been unconscious for about an hour. The Scanner here on Earth will destroy my brain and body, while recording the exact states of all of my cells. It will then transmit this information by radio. Travelling at the speed of light, the message will take three minutes to reach the Replicator on Mars. This will then create, out of new matter, a brain and body exactly like mine. It will be in this body that I shall wake up.

Though I believe that this is what will happen, I still hesitate. But then I remember seeing my wife grin when, at breakfast today, I revealed my nervousness. As she reminded me, she has been often teletransported, and there is nothing wrong with *her*. I press the button. As predicted, I lose and seem at once to regain consciousness, but in a different cubicle. Examining my new body, I find no change at all. Even the cut on my upper lip, from this morning's shave, is still there.

Several years pass, during which I am often Teletransported. I am now back in the cubicle, ready for another trip to Mars. But this time, when I press the green button, I do not lose consciousness. There is a whirring sound, then silence. I leave the cubicle, and say to the attendant: 'It's not working. What did I do wrong?'

'It's working', he replies, handing me a printed card. This reads: 'The New Scanner records your blueprint without destroying your brain and body. We hope that you will welcome the opportunities which this technical advance offers.'

The attendant tells me that I am one of the first people to use the New Scanner. He adds that, if I stay for an hour, I can use the Intercom to see and talk to myself on Mars.

'Wait a minute', I reply, 'If I'm here I can't *also* be on Mars'.

Someone politely coughs, a white-coated man who asks to speak to me in private. We go to his office, where he tells me to sit down, and pauses. Then he says: 'I'm afraid that we're having problems with the New Scanner. It records your blueprint just as accurately, as you will see when you talk to yourself on Mars. But it seems to be damaging the cardiac systems which it scans. Judging from the results so far, though you will be quite healthy on Mars, here on Earth you must expect cardiac failure within the next few days.'

The attendant later calls me to the Intercom. On the screen I see myself just as I do in the mirror every morning. But there are two differences. On the screen I am not left-right reversed. And, while I stand here speechless, I can see and hear myself, in the studio on Mars, starting to speak.

What can we learn from this imaginary story? Some believe that we can learn little. This would have been Wittgenstein's view.[1] And Quine writes: 'The method of science fiction has its uses in philosophy, but...I wonder whether the limits of the method are properly heeded. To seek what is "logically required" for sameness of person under unprecedented circumstances is to suggest that words have some logical force beyond what our past needs have invested them with.'[2]

This criticism might be justified if, when considering such imagined cases, we had no reactions. But these cases arouse in most of us strong beliefs. And these are beliefs, not about our words, but about ourselves. By considering these cases, we discover what we believe to be involved in our own continued existence, or what it is that makes us now and ourselves next year the same people. We discover our beliefs about the nature of personal identity over time. Though our beliefs are revealed most clearly when we consider imaginary cases, these beliefs also cover actual cases, and our own lives. [...] I shall argue that some of these beliefs are false, then suggest how and why this matters.

75 Simple Teletransportation and the Branch-Line Case

At the beginning of my story, the Scanner destroys my brain and body. My blueprint is beamed to Mars, where another machine makes an organic *Replica* of me. My Replica thinks that he is me, and he seems to remember living my life up to the moment when I pressed the green button. In every other way, both physically and psychologically, we are exactly similar. If he returned to Earth, everyone would think that he was me.

Simple Teletransportation, as just described, is a common feature in science fiction. And it is believed, by some readers of this fiction, merely to be the fastest way of travelling. They believe that my Replica *would* be *me.* Other science fiction readers, and some of the characters in this fiction, take a different view. They believe that, when I press the green button, I die. My Replica is *someone else,* who has been made to be exactly like me.

This second view seems to be supported by the end of my story. The New Scanner does not destroy my brain and body. Besides gathering the information, it merely damages my heart. While I am in the cubicle, with the green button pressed, nothing seems to happen. I walk out, and learn that in a few days I shall die. I later talk, by two-way television, to my Replica on Mars. Let us continue the story. Since my Replica knows that I am about to die, he tries to console me with the same thoughts with which I recently tried to console a dying friend. It is sad to learn, on the receiving end, how unconsoling these thoughts are. My Replica then assures me that he will take up my life where I leave off. He loves my wife, and together they will care for my children. And he will finish the book that I am writing. Besides having all of my drafts, he has all of my intentions. I must admit that he can finish my book as well as I could. All these facts console me a little. Dying when I know that I shall have a Replica is not quite as bad as, simply, dying. Even so, I shall soon lose consciousness, forever.

In Simple Teletransportation, I am destroyed before I am Replicated. This makes it easier to believe that this *is* a way of travelling - that my Replica *is* me. At the end of my story, my life and that of my Replica overlap. Call this the *Branch-Line Case.* In this case, I cannot hope to travel on the *Main Line,* waking up on Mars with forty years of life ahead. I shall stay on the Branch-Line, here on Earth, which ends a few days later. Since I can talk to my Replica, it seems clear that he is *not* me. Though he is exactly like me, he is one person, and I am another. When I pinch myself, he feels nothing. When I have my heart attack, he will again feel nothing. And when I am dead he will live for another forty years.

If we believe that my Replica is not me, it is natural to assume that my prospect, on the Branch-Line, is almost as bad as ordinary death. I shall deny this assumption. As I shall argue later, being destroyed and Replicated is about as good as ordinary survival. [...]

79 The Other Views

I am asking what is the criterion of personal identity over time - what this identity involves, or consists in. I first described the spatio-temporal physical continuity that, on the standard view, is the criterion of identity of physical objects. I then described two views about personal identity, the Physical and Psychological Criteria [Parfit's descriptions not included here].

There is a natural but false assumption about these views. Many people believe in what is called *Materialism,* or *Physicalism.* This is the view that that there are no purely mental objects, states, or events. On one version of Physicalism, every mental event is just a physical event in some particular brain and nervous system. There are other versions. Those who are not Physicalists are either *Dualists* or *Idealists.* Dualists believe that mental events are *not* physical events. This can be so even if all mental events are causally dependent on physical events in a brain. Idealists believe that all states and events are, when understood correctly, purely mental. Given these distinctions, we may assume that Physicalists must accept the Physical Criterion of personal identity.

This is not so. Physicalists could accept the Psychological Criterion. And they could accept the version that allows any reliable cause, or any cause. They could thus believe that, in Simple Teletransportation, my Replica would be me. They would here be rejecting the Physical Criterion.[3]

These criteria are not the only views about personal identity. I shall now describe some of the other views that are either sufficiently plausible, or have enough supporters, to be worth considering. This description may be hard to follow; but it will give a rough idea of what lies ahead. If much of this summary seems either obscure or trivial, do not worry.

I start with a new distinction. On the Physical Criterion, personal identity over time just involves the physically continuous existence of enough of a brain so that it remains the brain of a living person. On the Psychological Criterion, personal identity over time just involves the various kinds of psychological continuity, with the right kind of cause. These views are both *Reductionist.* They are Reductionist because they claim

> (1) that the fact of a person's identity over time just consists in the holding of certain more particular facts.

They may also claim

> (2) that these facts can be described without either presupposing the identity of this person, or explicitly claiming that the experiences in this person's life are had by this person, or even explicitly claiming that this person exists. These facts can be described in an *impersonal* way.

It may seem that (2) could not be true. When we describe the psychological continuity that unifies some person's mental life, we must mention this person, and many other people, in describing the *content* of many thoughts, desires, intentions, and other mental states. But mentioning this person in this way does not involve either asserting that these mental states are had by this person, or asserting that this person exists. These claims need further arguments, which I shall later give.

Our view is *Non-Reductionist* if we reject both of the two Reductionist claims.

Many Non-Reductionists believe that *we are separately existing entities.* On this view, personal identity over time does not just consist in physical and/or psychological continuity. It involves a further fact. A person is a separately existing entity, distinct from his brain and body, and his experiences. On the best-known version of this view, a person is a *purely mental* entity: a Cartesian Pure Ego, or spiritual substance. But we might believe that a person is a separately existing *physical* entity, of a kind that is not yet recognised in the theories of contemporary physics.

There is another Non-Reductionist View. This view denies that we are separately existing entities, distinct from our brains and bodies, and our experiences. But this view claims that, though we are not separately existing entities, personal identity *is* a further fact, which does not just consist in physical and/or psychological continuity. I call this the *Further Fact View.* [...]

87 Divided Minds

Some recent medical cases provide striking evidence in favour of the Reductionist View. Human beings have a lower brain and two upper hemispheres, which are cormected by a bundle of fibres. In treating a few

people with severe epilepsy, surgeons have cut these fibres. The aim was to reduce the severity of epileptic fits, by confining their causes to a single hemisphere. This aim was achieved. But the operations had another unintended consequence. The effect, in the words of one surgeon, was the creation of 'two separate spheres of consciousness'.[4]

This effect was revealed by various psychological tests. These made use of two facts. We control our right arms with our left hemispheres, and vice versa. And what is in the right halves of our visual fields we see with our left hemispheres, and vice versa. When someone's hemispheres have been disconnected, psychologists can thus present to this person two different written questions in the two halves of his visual field, and can receive two different answers written by this person's two hands.

Here is a simplified version of the kind of evidence that such tests provide. One of these people is shown a wide screen, whose left half is red and right half is blue. On each half in a darker shade are the words, 'How many colours can you see?' With both hands the person writes, 'Only one'. The words are now changed to read, 'Which is the only colour that you can see?' With one of his hands the person writes 'Red', with the other he writes 'Blue'.

If this is how this person responds, there seems no reason to doubt that he is having visual sensations - that he does, as he claims, see both red and blue. But in seeing red he is not aware of seeing blue, and vice versa. This is why the surgeon writes of 'two separate spheres of consciousness'. In each of his centres of consciousness the person can see only a single colour. In one centre, he sees red, in the other, blue.

The many actual tests, though differing in details from the imagined test that I have just described, show the same two essential features. In seeing what is in the left half of his visual field, such a person is quite unaware of what he is now seeing in the right half of his visual field, and vice versa. And in the centre of consciousness in which he sees the left half of his visual field, and is aware of what he is doing with his left hand, this person is quite unaware of what he is doing with his right hand, and vice versa.

One of the complications in the actual cases is that for most people, in at least the first few weeks after the operation, speech is entirely controlled by the right-handed hemisphere. As a result, 'if the word "hat" is flashed on the left, the left hand will retrieve a hat from a group of concealed objects if the person is told to pick out what he has seen. At the same time he will insist verbally that he saw nothing.'[5] Another complication is that, after a certain time, each hemisphere can sometimes control both hands. Nagel quotes an example of the kind of conflict which can follow:

> A pipe is placed out of sight in the patient's left hand, and he is then asked to write with his left hand what he was holding. Very laboriously and heavily, the left hand writes the letters P and 1. Then suddenly the writing speeds up and becomes lighter, the 1 is converted to an E, and the word is completed as PENCIL. Evidently the left hemisphere has made a guess based on the appearance of the first two letters, and has interfered ... But then the right hemisphere takes over control of the hand again, heavily crosses out the letters ENCIL, and draws a crude picture of a pipe.[6]

Such conflict may take more sinister forms. One of the patients complained that sometimes, when he embraced his wife, his left hand pushed her away.

Much has been made of another complication in the actual cases, hinted at in Nagel's example. The left hemisphere typically supports or 'has' the linguistic and mathematical abilities of an adult, while the right hemisphere 'has' these abilities at the level of a young child. But the right hemisphere, though less advanced in these respects, has greater abilities of other kinds, such as those involved in pattern recognition, or musicality. It is assumed that, after the age of three or four, the two hemispheres follow a 'division of labour', with each developing certain abilities. The lesser linguistic abilities of the right hemisphere are not intrinsic, or permanent. People who have had strokes in their left hemispheres often regress to the linguistic ability of a young child, but with their remaining right hemispheres many can re-learn adult speech. It is also believed that, in a minority of people, there may be no difference between the abilities of the two hemispheres.

Suppose that I am one of this minority, with two exactly similar hemispheres. And suppose that I have been equipped with some device that can block communication between my hemispheres. Since this device is connected to my eyebrows, it is under my control. By raising an eyebrow I can divide my mind. In each half of my divided mind I can then, by lowering an eyebrow, reunite my mind.

This ability would have many uses. Consider

> *My Physics Exam* I am taking an exam, and have only fifteen minutes left in which to answer the last question. It occurs to me that there are two ways of tackling this question. I am unsure which is more likely to succeed. I therefore decide to divide my mind for ten minutes, to work in each half of my mind on one of the two calculations, and then to reunite my mind to write a fair copy of the best result. What shall I experience?

> When I disconnect my hemispheres, my stream of consciousness divides. But this division is not something that I experience. Each of my two streams of consciousness seems to have been straightforwardly continuous with my one stream of consciousness up to the moment of division. The only changes in each stream are the disappearance of half my visual field and the loss of sensation in, and control over, one of my arms.
>
> Consider my experiences in my 'right-handed' stream. I remember deciding that I would use my right hand to do the longer calculation. This I now begin. In working at this calculation I can see, from the movements of my left hand, that I am also working at the other. But I am not aware of working at the other. I might, in my right-handed stream, wonder how, in my left-handed stream, I am getting on. I could look and see. This would be just like looking to see how well my neighbour is doing, at the next desk. In my right-handed stream I would be equally unaware both of what my neighbour is now thinking and of what I am now thinking in my left-handed stream. Similar remarks apply to my experiences in my left-handed stream.
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> My work is now over. I am about to reunite my mind. What should I, in each stream, expect? Simply that I shall suddenly seem to remember just having worked at two calculations, in working at each of which I was not aware of working at the other. This, I suggest, we can imagine. And, if my mind had been divided, my apparent memories would be correct.

In describing this case, I assumed that there were two separate series of thoughts and sensations. If my two hands visibly wrote out two calculations, and I also claimed later to remember two corresponding series of thoughts, this is what we ought to assume. It would be most implausible to assume that either or both calculations had been done unconsciously.

It might be objected that my description ignores 'the necessary unity of consciousness'. But I have not ignored this alleged necessity. I have denied it. What is a fact must be possible. And it is a fact that people with disconnected hemispheres have two separate streams of consciousness - two series of thoughts and experiences, in having each of which they are unaware of having the other. Each of these two streams separately displays unity of consciousness. This may be a surprising fact. But we can understand it. We can come to believe that a person's mental history need not be like a canal, with only one channel, but could be like a river, occasionally having separate streams. I suggest that we can also

imagine what it would be like to divide and reunite our minds. My description of my experiences in my Physics Exam seems both to be coherent and to describe something that we can imagine.

It might next be claimed that, in my imagined case, I do not have a divided mind. Rather, I have two minds. This objection does not raise a real question. These are two ways of describing one and the same outcome.

A similar objection claims that, in these actual and imagined cases, the result is not a single person with either a divided mind or two minds. The result is two different people, sharing control of most of one body, but each in sole control of one arm. Here too, I believe that this objection does not raise a real question. These are again two ways of describing the same outcome. This is what we believe if we are Reductionists.

If we are not yet Reductionists, as I shall assume, we believe that it is a real question whether such cases involve more than a single person. Perhaps we can believe this in the actual cases, where the division is permanent. But this belief is hard to accept when we consider my imagined Physics Exam. In this case there are two streams of consciousness for only ten minutes. And I later seem to remember doing both of the calculations that, during these ten minutes, my two hands could be seen to be writing out. Given the brief and modest nature of this disunity, it is not plausible to claim that this case involves more than a single person. Are we to suppose that, during these ten minutes, I cease to exist, and two new people come into existence, each of whom then works out one of the calculations? On this interpretation, the whole episode involves three people, two of whom have lives that last for only ten minutes. Moreover, each of these two people mistakenly believes that he is me, and has apparent memories that accurately fit my past. And after these ten minutes I have accurate apparent memories of the brief lives of each of these two people, except that I mistakenly believe that I myself had all of the thoughts and sensations that these people had. It is hard to believe that I am mistaken here, and that the episode does involve three quite different people.

It is equally hard to believe that it involves two different people, with me doing one of the calculations, and some other person doing the other. I admit that, when I first divide my mind, I might in doing one of the calculations believe that the other calculation must be being done by someone else. But in doing the other calculation I might have the same belief. When my mind has been reunited, I would then seem to remember believing, while doing each of the calculations, that the other calculation must be being done by someone else. When I seem to remember both

these beliefs, I would have no reason to think that one was true and the other false. And after several divisions and reunions I would cease to have such beliefs. In each of my two streams of consciousness I would believe that I was now, in my other stream, having thoughts and sensations of which, in this stream, I was now unaware.

88 What Explains the Unity of Consciousness?

Suppose that, because we are not yet Reductionists, we believe that there must be a true answer to the question, 'Who has each stream of consciousness?' And suppose that, for the reasons just given, we believe that this case involves only a single person: me. We believe that for ten minutes I have a divided mind.

Remember next the view that psychological unity is explained by ownership. On this view, we should explain the unity of a person's consciousness, at any time, by ascribing different experiences to this person, or 'subject of experiences'. What unites these different experiences is that they are being had by the same person. This view is held both by those who believe that a person is a separately existing entity, and by some of those who reject this belief. And this view also applies to the unity of each life.

When we consider my imagined Physics Exam, can we continue to accept this view? We believe that, while my mind is divided, I have two separate series of experiences, in having each of which I am unaware of having the other. At any time in one of my streams of consciousness I am having several different thoughts and sensations. I might be aware of thinking out some part of the calculation, feeling writer's cramp in one hand, and hearing the squeaking of *my neighbour's* old-fashioned pen. What unites these different experiences?

On the view described above, the answer is that these are the experiences being had by me at this time. This answer is incorrect. I am not just having these experiences at this time. I am also having, in my other stream of consciousness, several other experiences. We need to explain the unity of consciousness within each of my two streams of consciousness, or in each half of my divided mind. We cannot explain these two unities by claiming that all of these experiences are being had by me at this time. This makes the two unities one. It ignores the fact that, in having each of these two sets of experiences, I am unaware of having the other.

Suppose that we continue to believe that unity should be explained by ascribing different experiences to a single subject. We must then believe

that this case involves at least two different subjects of experiences. What unites the experiences in my left-handed stream is that they are all being had by one subject of experiences. What unites the experiences in my right-handed stream is that they are all being had by another subject of experiences. We must now abandon the claim that 'the subject of experiences' is the person. On our view, I am a subject of experiences. While my mind is divided there are two different subjects of experiences. These are not the same subject of experiences, so they cannot both be me. Since it is unlikely that I am one of the two, given the similarity of my two streams of consciousness, we should probably conclude that I am neither of these two subjects of experiences. The whole episode therefore involves three such entities. And two of these entities cannot be claimed to be the kind of entity with which we are all familiar, a person. I am the only person involved, and two of these subjects of experiences are *not* me. Even if we assume that I *am* one of these two subjects of experiences, *the other* cannot be me, and is therefore not a person.

We may now be sceptical. While the 'subject of experiences' was the person, it seemed plausible to claim that what unites a set of experiences is that they are all had by a single subject. If we have to believe in subjects of experiences that are not persons, we may doubt whether there really are such things. There are of course, in the animal world, many subjects of experiences that are not persons. My cat is one example. But other animals are irrelevant to this imagined case. On the view described above, we have to believe that the life of a *person* could involve subjects of experiences that are not persons.

Reconsider my experiences in my right-handed stream of consciousness. In this stream at a certain time I am aware of thinking about part of a calculation, feeling writer's cramp, and hearing the sounds made by my neighbour's pen. Do we explain the unity of these experiences by claiming that they are all being had by the same subject of experiences, this being an entity which is *not* me? This explanation does not seem plausible. If this subject of experiences is *not* a person, what kind of thing is it? It cannot be claimed to be a Cartesian Ego, if I am claimed to be such an Ego. This subject of experiences cannot be claimed to be such an Ego, since it is not me, and this case involves only one person. Can this subject of experiences be a Cartesian Sub-Ego, a persisting purely mental entity which is merely part of a person? We may decide that we have insufficient grounds for believing that there are such things.

I turn next to the other view mentioned above. Some people believe that unity is explained by ownership, even though they deny that we are separately existing entities. These people believe that what unites a

person's experiences at any time is the fact that these experiences are being had by this person. As we have seen, in this imagined case this belief is false. While I am having one set of experiences in my right-handed stream, I am also having another set in my left-handed stream. We cannot explain the unity of either set of experiences by claiming that these are the experiences that I am having at this time, since this would conflate these two sets.

A Reductionist may now intervene. On his view, what unites my experiences in my right-handed stream is that there is, at any time, a single state of awareness of these various experiences. There is a state of awareness of having certain thoughts, feeling writer's cramp, and hearing the sound of a squeaking pen. At the same time, there is another state of awareness of the various experiences in my left-handed stream. My mind is divided because there is no single state of awareness of both of these sets of experiences.

It may be objected that these claims do not explain but only redescribe the unity of consciousness in each stream. In one sense, this is true. This unity does not need a deep explanation. It is simply a fact that several experiences can be *co-conscious*, or be the objects of a single state of awareness. It may help to compare this fact with the fact that there is short-term memory of experiences within the last few moments: short-term memory of what is called 'the specious present'. Just as there can be a single memory of just having had several experiences, such as hearing a bell strike three times, there can be a single state of awareness both of hearing the fourth striking of this bell, and of seeing ravens fly past the bell-tower. Reductionists claim that nothing more is involved in the unity of consciousness at a single time. Since there can be one state of awareness of several experiences, we need not explain this unity by ascribing these experiences to the same person, or subject of experiences.

It is worth restating other parts of the Reductionist View. I claim:

> Because we ascribe thoughts to thinkers, it is true that thinkers exist. But thinkers are not separately existing entities. The existence of a thinker just involves the existence of his brain and body, the doing of his deeds, the thinking of his thoughts, and the occurrence of certain other physical and mental events. We could therefore redescribe any person's life in impersonal terms. In explaining the unity of this life, we need not claim that it is the life of a particular person. We could describe what, at different times, was thought and felt and observed and done, and how these various events were interrelated. Persons would be mentioned here only in the descriptions

> of the content of many thoughts, desires, memories, and so on. Persons need not be claimed to be the thinkers of any of these thoughts.

These claims are supported by the case where I divide my mind. It is not merely true here that the unity of different experiences does not *need* to be explained by ascribing all of these experiences to me. The unity of my experiences, in each stream, *cannot* be explained in this way. There are only two alternatives. We might ascribe the experiences in each stream to a subject of experiences which is *not* me, and, therefore, not a person. Or, if we doubt the existence of such entities, we can accept the Reductionist explanation. At least in this case, this may now seem the best explanation.

This is one of the points at which it matters whether my imagined case is possible. If we could briefly divide our minds, this casts doubt on the view that psychological unity is explained by ownership. As I argued, if we are not Reductionists, we ought to regard my imagined case as involving only a single person. It then becomes impossible to claim that the unity of consciousness should be explained by ascribing different experiences to a single subject, the person. We could maintain this view only by believing in subjects of experiences that are not persons. Other animals are irrelevant here. Our belief is about what is involved in the lives of persons. If we have to admit that in these lives there could be two kinds of subjects of experiences, those that are and those that are not persons, our view will have lost much of its plausibility. It would help our view if we could claim that, because persons are indivisible, my imagined case could never happen.

My case is imagined. But the essential feature of the case, the division of consciousness into separate streams, *has* happened several times. This undermines the reply just given. My imagined case may well become possible, and could at most be merely technically impossible. And in this case the unity of consciousness in each stream cannot be explained by ascribing my experiences to me. Because this explanation fails, this case refutes the view that psychological unity can be explained by ascribing different experiences to a single person. [...]

89 What Happens When I Divide?

I shall now describe another natural extension of the actual cases of divided minds. Suppose first that I am one of a pair of identical twins,

and that both my body and my twin's brain have been fatally injured. Because of advances in neuro-surgery, it is not inevitable that these injuries will cause us both to die. We have between us one healthy brain and one healthy body. Surgeons can put these together.

This could be done even with existing techniques. Just as my brain could be extracted, and kept alive by a connection with an artifical heart-lung machine, it could be kept alive by a connection with the heart and lungs in my twin's body. The drawback, today, is that the nerves from my brain could not be connected with the nerves in my twin's body. My brain could survive if transplanted into his body, but the resulting person would be paralysed.

Even if he is paralysed, the resulting person could be enabled to communicate with others. One crude method would be some device, attached to the nerve that would have controlled this person's right thumb, enabling him to send messages in Morse Code. Another device, attached to some sensory nerve, could enable him to receive messages. Many people would welcome surviving, even totally paralysed, if they could still communicate with others. The stock example is that of a great scientist whose main aim in life is to continue thinking about certain abstract problems.

Let us suppose, however, that surgeons are able to connect my brain to the nerves in my twin's body. The resulting person would have no paralysis, and would be completely healthy. Who would this person be?

This is not a difficult question. It may seem that there is a disagreement here between the Physical and Psychological Criteria. Though the resulting person will be psychologically continuous with me, he will not have the whole of my body. But, as I have claimed, the Physical Criterion ought not to require the continued existence of my whole body.

If all of my brain continues both to exist and to be the brain of one living person, who is psychologically continuous with me, I continue to exist. This is true whatever happens to the rest of my body. When I am given someone else's heart, I am the surviving recipient, not the dead donor. When my brain is transplanted into someone else's body, it may seem that I am here the dead donor. But I am really still the recipient, and the survivor. Receiving a new skull and a new body is just the limiting case of receiving a new heart, new lungs, new arms, and so on.[7]

It will of course be important what my new body is like. If my new body was quite unlike my old body, this would affect what I could do, and might thus indirectly lead to changes in my character. But there is no reason to suppose that being transplanted into a very different body would disrupt my psychological continuity.

It has been objected that 'the possession of some sorts of character trait requires the possession of an appropriate sort of body'. Quinton answers this objection. He writes, of an unlikely case,

> It would be odd for a six-year old girl to display the character of Winston Churchill, odd indeed to the point of outrageousness, but it is not utterly inconceivable. At first, no doubt, the girl's display of dogged endurance, a world-historical comprehensiveness of outlook, and so forth, would strike one as distasteful and pretentious in so young a child. But if she kept it up the impression would wear off.[8]

More importantly, as Quinton argues, this objection could show only that it might matter whether my brain is housed in a certain *kind* of body. It could not show that it would matter whether it was housed in any *particular* body. And in my imagined case my brain will be housed in a body which, though not numerically identical to my old body, is - because it is my twin's body - very similar.

On all versions of the Psychological Criterion, the resulting person would be me. And most believers in the Physical Criterion could be persuaded that, in this case, this is true. As I have claimed, the Physical Criterion should require only the continued existence of *enough* of my brain to be the brain of a living person, provided that no one else has enough of this brain. This would make it me who would wake up, after the operation. And if my twin's body was just like mine, I might even fail to notice that I had a new body.

It is in fact true that one hemisphere is enough. There are many people who have survived, when a stroke or injury puts out of action one of their hemispheres. With his remaining hemisphere, such a person may need to re-learn certain things, such as adult speech, or how to control both hands. But this is possible. In my example I am assuming that, as may be true of certain actual people, both of my hemispheres have the full range of abilities. I could thus survive with either hemisphere, without any need for re-learning.

I shall now combine these last two claims. I would survive if my brain was successfully transplated into my twin's body. And I could survive with only half my brain, the other half having been destroyed. Given these two facts, it seems clear that I would survive if half my brain was successfully transplanted into my twin's body, and the other half was destroyed.

What if the other half was *not* destroyed? This is the case that Wiggins described: that in which a person, like an amoeba, divides.[9] To simplify the case, I assume that I am one of three identical triplets. Consider

> *My Division* My body is fatally injured, as are the brains of my two brothers. My brain is divided, and each half is successfully transplanted into the body of one of my brothers. Each of the resulting people believes that he is me, seems to remember living my life, has my character, and is in every other way psychologically continuous with me. And he has a body that is very like mine.

This case is likely to remain impossible. Though it is claimed that, in certain people, the two hemispheres may have the same full range of abilities, this claim might be false. I am here assuming that this claim is true when applied to me. I am also assuming that it would be possible to connect a transplanted half-brain with the nerves in its new body. And I am assuming that we could divide, not just the upper hemispheres, but also the lower brain. My first two assumptions may be able to be made true if there is enough progress in neurophysiology. But it seems likely that it would never be possible to divide the lower brain, in a way that did not impair its functioning.

Does it matter if, for this reason, this imagined case of complete division will always remain impossible? Given the aims of my discussion, this does not matter. This impossibility is merely technical. The one feature of the case that might be held to be *deeply* impossible - the division of a person's consciousness into two separate streams - is the feature that has actually happened. It would have been important if this had been impossible, since this might have supported some claim about what we really are. It might have supported the claim that we are indivisible Cartesian Egos. It therefore matters that the division of a person's consciousness is in fact possible. There seems to be no similar connection between a particular view about what we really are and the impossibility of dividing and successfully transplanting the two halves of the lower brain. This impossibility thus provides no ground for refusing to consider the imagined case in which we suppose that this can be done. And considering this case may help us to decide both what we believe ourselves to be, and what in fact we are. As Einstein's example showed, it can be useful to consider impossible thought-experiments.

It may help to state, in advance, what I believe this case to show. It provides a further argument against the view that we are separately existing entities. But the main conclusion to be drawn is that *personal identity is not what matters.*

It is natural to believe that our identity is what matters. Reconsider the Branch-Line Case, where I have talked to my Replica on Mars, and am about to die. Suppose we believe that I and my Replica are different

people. It is then natural to assume that my prospect is almost as bad as ordinary death. In a few days, there will be no one living who will be me. It is natural to assume that *this* is what matters. In discussing My Division, I shall start by making this assumption.

In this case, each half of my brain will be successfully transplanted into the very similar body of one of my two brothers. Both of the resulting people will be fully psychologically continuous with me, as I am now. What happens to me?

There are only four possibilities: (1) I do not survive; (2) I survive as one of the two people; (3) I survive as the other; (4) I survive as both.

The objection to (1) is this. I would survive if my brain was successfully transplanted. And people have in fact survived with half their brains destroyed. Given these facts, it seems clear that I would survive if half my brain was successfully transplanted, and the other half was destroyed. So how could I fail to survive if the other half was also successfully transplanted? How could a double success be a failure?

Consider the next two possibilities. Perhaps one success is the maximum score. Perhaps I shall be one of the two resulting people. The objection here is that, in this case, each half of my brain is exactly similar, and so, to start with, is each resulting person. Given these facts, how can I survive as only one of the two people? What can make me one of them rather than the other?

These three possibilities cannot be dismissed as incoherent. We can understand them. But, while we assume that identity is what matters, (1) is not plausible. My Division would not be as bad as death. Nor are (2) and (3) plausible. There remains the fourth possibility: that I survive as both of the resulting people.

This possibility might be described in several ways. I might first claim: 'What we have called "the two resulting people" are not two people. They are one person. I do survive this operation. Its effect is to give me two bodies, and a divided mind.'

This claim cannot be dismissed outright. As I argued, we ought to admit as possible that a person could have a divided mind. If this is possible, each half of my divided mind might control its own body. But though this description of the case cannot be rejected as inconceivable, it involves a great distortion in our concept of a person. In my imagined Physics Exam I claimed that this case involved only one person. There were two features of the case that made this plausible. The divided mind was soon reunited, and there was only one body. If a mind was permanently divided, and its halves developed in different ways, it would become less plausible to claim that the case involves only one person.

(Remember the actual patient who complained that, when he embraced his wife, his left hand pushed her away.)

The case of complete division, where there are also two bodies, seems to be a long way over the borderline. After I have had this operation, the two 'products' each have all of the features of a person. They could live at opposite ends of the Earth. Suppose that they have poor memories, and that their appearance changes in different ways. After many years, they might meet again, and fail even to recognise each other. We might have to claim of such a pair, innocently playing tennis: 'What you see out there is a single person, playing tennis with himself. In each half of his mind he mistakenly believes that he is playing tennis with someone else.' If we are not yet Reductionists, we believe that there is one true answer to the question whether these two tennis-players are a single person. Given what we mean by 'person', the answer must be No. It cannot be true that what I believe to be a stranger, standing there behind the net, is in fact another part of myself.

Suppose we admit that the two 'products' are, as they seem to be, two different people. Could we still claim that I survive as both? There is another way in which we could. I might say: 'I survive the operation as two different people. They can be different people, and yet be me, in the way in which the Pope's three crowns together form one crown.'[10]

This claim is also coherent. But it again greatly distorts the concept of a person. We are happy to agree that the Pope's three crowns, when put together, are a fourth crown. But it is hard to think of two people as, together, being a third person. Suppose the resulting people fight a duel. Are there three people fighting, one on each side, and one on both? And suppose one of the bullets kills. Are there two acts, one murder and one suicide? How many people are left alive? One or two? The composite third person has no separate mental life. It is hard to believe that there really would be such a third person. Instead of saying that the resulting people together constitute me - so that the pair is a trio - it is better to treat them as a pair, and describe their relation to me in a simpler way.

Other claims might be made. It might be suggested that the two resulting people are *now* different people, but that, before My Division, they *were* the same person. Before My Division, they were me. This suggestion is ambiguous. The claim may be that, before My Division, they *together* were me. On this account, there were three different people even before My Division. This is even less plausible than the claim I have just rejected. (It might be thought that I have misunderstood this suggestion. The claim may be that the resulting people did not exist, as separate

people, before My Division. But if they did not then exist, it cannot have been true that they together were me.)

It may instead be suggested that, before My Division, *each* of the resulting people *was* me. After My Division, neither is me, since I do not now exist. But, if each of these people *was* me, whatever happened to me must have happened to each of these people. If I did not survive My Division, neither of these people survived. Since there *are* two resulting people, the case involves *five* people. This conclusion is absurd. Can we deny the assumption that implies this conclusion? Can we claim that, though each of the resulting people *was* me, what happened to me did not happen to these people? Assume that I have not yet divided. On this suggestion, it is now true that each of the resulting people *is* me. If what happens to me does not happen to X, X cannot be me.

There are far-fetched ways to deny this last claim. These appeal to claims about tensed identity. Call one of the resulting people *Lefty.* I might ask, 'Are *Lefty* and *Derek Parfit* names of one and the same person?' For believers in tensed identity, this is not a proper question. As this shows, claims about tensed identity are radically different from the way in which we now think. 1 shall merely state here what I believe others to have shown: these claims do not solve our problem.

David Lewis makes a different proposal. On his view, there are two people who share my body even before My Division. In its details, this proposal is both elegant and ingenious. I shall not repeat here why, as I have claimed elsewhere, this proposal does not solve our problem.[11]

I have discussed several unusual views about what happens when I divide. On these views, the case involves a single person, a duo, a trio two of whom compose the third, and a quintet. We could doubtless conjure up the missing quartet. But it would be tedious to consider more of these views. All involve too great distortions of the concept of a person. We should therefore reject the fourth suggested possibility: the claim that, in some sense, I survive as both of the two resulting people.

There are three other possibilities: that I shall be *one,* or *the other,* or *neither* of these people. These three claims seemed implausible. Note next that, as before, we could not *find out* what happens even if we could actually perform this operation. Suppose, for example, that I do survive as one of the resulting people. I would believe that I have survived. But I would know that the other resulting person falsely believes that he is me, and that he survived. Since I would know this, I could not trust my own belief. I might be the resulting person with the false belief. And, since we would both claim to be me, other people would have no reason to believe

one of us rather than the other. Even if we performed this operation, we would therefore learn nothing.

Whatever happened to me, we could not discover what happened. This suggests a more radical answer to our question. It suggests that the Reductionist View is true. Perhaps there are not here different possibilities, each of which might be what happens, though we could never know which actually happens. Perhaps, when we know that each resulting person would have one half of my brain, and would be psychologically continuous with me, we know everything. What are we supposing when we suggest, for instance, that one of the resulting people might be me? What would make this the true answer?

I believe that there cannot be different possibilities, each of which might be the truth, unless we are separately existing entities, such as Cartesian Egos. If what I really am is one particular Ego, this explains how it could be true that one of the resulting people would be me. It could be true that it is in this person's brain and body that this particular Ego regained consciousness.

If we believe in Cartesian Egos, we might be reminded of Buridan's ass, which starved to death between two equally nourishing bales of hay. This ass had no reason to eat one of these bales of hay before eating the other. Being an overly-rational beast it refused to make a choice for which there was no reason. In my example, there would be no reason why the particular Ego that I am should wake up as one of the two resulting people. But this might just happen, in a random way, as is claimed for fundamental particles.

The more difficult question, for believers in Cartesian Egos, is whether I would survive at all. Since each of the resulting people would be psychologically continuous with me, there would be no evidence supporting either answer to this question. This argument retains its force, even if I am a Cartesian Ego.

As before, a Cartesian might object that I have misdescribed what would happen. He might claim that, if we carried out this operation, it would not in fact be true that *both* of the resulting people would be psychologically continuous with me. It might be true that one or other of these people was psychologically continuous with me. In either of these cases, this person would be me. It might instead be true that neither person was psychologically continuous with me. In this case, I would not survive. In each of these three cases, we would learn the truth.

Whether this is a good objection depends on what the relation is between our psychological features and the states of our brains. As I have said, we have conclusive evidence that the carrier of psychological

continuity is *not* indivisible. In the actual cases in which hemispheres have been disconnected, this produced two series of thoughts and sensations. These two streams of consciousness were both psychologically continuous with the original stream. Psychological continuity has thus, in several actual cases, taken a dividing form. This fact refutes the objection just given. It justifies my claim that, in the imagined case of My Division, both of the resulting people would be psychologically continuous with me. Since this is so, the Cartesian View can be advanced here only in the more dubious version that does not connect the Ego with any observable or introspectible facts. Even if I am such an Ego, I could never know whether or not I had survived. For Cartesians, this case is a problem with no possible solution.

Suppose that, for the reasons given earlier, we reject the claim that each of us is really a Cartesian Ego. And we reject the claim that a person is any other kind of separately existing entity, apart from his brain and body, and various mental and physical events. How then should we answer the question about what happens when I divide? I distinguished four possibilities. When I discussed each possibility, there seemed to be strong objections to the claim that it would be what happens. If we believe that these are different possibilities, any of which might be what happens, the case is a problem for us too.

On the Reductionist View, the problem disappears. On this view, the claims that I have discussed do not describe different possibilities, any of which might be true, and one of which must be true. These claims are merely different descriptions of the same outcome. We know what this outcome is. There will be two future people, each of whom will have the body of one of my brothers, and will be fully psychologically continuous with me, because he has half of my brain. Knowing this, we know everything. I may ask, 'But shall I be one of these two people, or the other, or neither?' But I should regard this as an empty question. Here is a similar question. In 1881 the French Socialist Party split. What happened? Did the French Socialist Party cease to exist, or did it continue to exist as one or other of the two new Parties? Given certain further details, this would be an empty question. Even if we have no answer to this question, we could know just what happened.

I must now distinguish two ways in which a question may be empty. About some questions we should claim both that they are empty, and that they have no answers. We could decide to *give* these questions answers. But it might be true that any possible answer would be arbitrary. If this is so, it would be pointless and might be misleading to give such an answer. [...]

There is another kind of case in which a question may be empty. In such a case this question has, in a sense, an answer. The question is empty because it does not describe different possibilities, any of which might be true, and one of which must be true. The question merely gives us different descriptions of the same outcome. We could know the full truth about this outcome without choosing one of these descriptions. But, if we do decide to give an answer to this empty question, one of these descriptions is better than the others. Since this is so, we can claim that this description is the answer to this question. And I claim that there is a best description of the case where I divide. The best description is that neither of the resulting people will be me.

Since this case does not involve different possibilities, the important question is not, 'Which is the best description?' The important question is: 'What ought to matter to me? How ought I to regard the prospect of division? Should I regard it as like death, or as like survival?' When we have answered this question, we can decide whether I have given the best description. [...]

90 What Matters When I Divide?

Some people would regard division as being as bad, or nearly as bad, as ordinary death. This reaction is irrational. We ought to regard division as being about as good as ordinary survival. As I have argued, the two 'products' of this operation would be two different people. Consider my relation to each of these people. Does this relation fail to contain some vital element that is contained in ordinary survival? It seems clear that it does not. I would survive if I stood in this very same relation to only one of the resulting people. It is a fact that someone can survive even if half his brain is destroyed. And on reflection it was clear that I would survive if my whole brain was successfully transplanted into my brother's body. It was therefore clear that I would survive if half my brain was destroyed, and the other half was successfully transplanted into my brother's body. In the case that we are now considering, my relation to each of the resulting people thus contains everything that would be needed for me to survive as that person. It cannot be the *nature* of my relation to each of the resulting people that, in this case, causes it to fail to be survival. Nothing is *missing.* What is wrong can only be the duplication.

Suppose that I accept this, but still regard division as being nearly as bad as death. My reaction is now indefensible. I am like someone who, when told of a drug that could double his years of life, regards the taking

of this drug as death. The only difference in the case of division is that the extra years are to run concurrently. This is an interesting difference; but it cannot mean that there are *no* years to run. We might say: 'You will lose your identity. But there are different ways of doing this. Dying is one, dividing is another. To regard these as the same is to confuse two with zero. Double survival is not the same as ordinary survival. But this does not make it death. It is even less like death.' [...]

If it was put forward on its own, it would be difficult to accept the view that personal identity is not what matters. But I believe that, when we consider the case of division, this difficulty disappears. When we see *why* neither resulting person will be me. I believe that, on reflection, we can also see that this does not matter, or matters only a little. [...]

[...] I might regard my division as being somewhat better than ordinary survival, or as being somewhat worse.

Why might I think it somewhat worse? I might claim that the relation between me and each of the resulting people is not quite the relation that matters in ordinary survival. This is not because something is missing, but because division brings *too much.* I may think that each of the resulting people will, in one respect, have a life that is worse than mine. Each will have to live in a world where there is someone else who, at least to start with, is exactly like himself. This may be unpleasantly uncanny. And it will raise practical problems. Suppose that what I most want is to write a certain book. This would be what each of the resulting people would most want to do. But it would be pointless for both to write this book. It would be pointless for both to do what they most want to do.

Consider next the relations between the resulting people and the woman I love. I can assume that, since she loves me, she will love them both. But she could not give to both the undivided attention that we now give to each other.

In these and other ways the lives of the resulting people may not be quite as good as mine. This might justify my regarding division as being not quite as good as ordinary survival. But it could not justify regarding division as being much less good, or as being as bad as death. And we should note that this reasoning ignores the fact that these two lives, taken together, would be twice as long as the rest of mine.

Instead of regarding division as being somewhat worse than ordinary survival, I might regard it as being better. The simplest reason would be the one just given: the doubling of the years to be lived. I might have more particular reasons. Thus there might be two life-long careers both of which I strongly want to pursue. I might strongly want both to be a novelist and to be a philosopher. If I divide, each of the resulting people

could pursue one of these careers. And each would be glad if the other succeeds. Just as we can take pride and joy in the achievements of our children, each of the resulting people would take pride and joy in the other's achievements.

If I have two strong but incompatible ambitions, division provides a way of fulfilling both, in a way that would gladden each resulting person. This is one way in which division could be better than ordinary survival. But there are other problems that division could not wholly solve. Suppose that I am torn between an unpleasant duty and a seductive desire. I could not wholly solve this problem by quasi-intending one of the resulting people to do my duty, and quasi-intending the other to do what I desire. The resulting person whom I quasi-intend to do my duty would himself be torn between duty and desire. Why should *he* be the one to do my unpleasant duty? We can foresee trouble here. My duty might get done if the seductive desire could not be fulfilled by more than one person. It might be the desire to elope with someone who wants only one companion. The two resulting people must then compete to be this one companion. The one who fails in this competition might then, grudgingly, do my duty. My problem would be solved, though in a less attractive way.

These remarks will seem absurd to those who have not yet been convinced that the Reductionist View is true, or that identity is not what matters. Such a person might say: 'If I shall not *be* either of the resulting people, division could not fulfil my ambitions. Even if one of the resulting people is a successful novelist, and the other a successful philosopher, this fulfils neither of my ambitions. If one of my ambitions is to be a successful novelist, my ambition is that J be a successful novelist. This ambition will not be fulfilled if I cease to exist and *someone else* is a successful novelist. And this is what would happen if I shall be neither of the resulting people.'

This objection assumes that there is a real question whether I shall be one of the resulting people, or the other, or neither. It is natural to assume that these are three different possibilities, any of which might be what happens. But as I have argued, unless I am a separately existing entity, such as a Cartesian Ego, these cannot be three different possibilities. There is nothing that could make it true that any of the three might be what really happens. (This is compatible with my claim that there is a best description of this case: that I shall be neither resulting person. This does not commit me to the view that there are different possibilities. This would be so only if one of the other descriptions *might* have been the truth - which I deny.)

We *could* give a different description. We could say that I shall be the resulting person who becomes a successful novelist. But it would be a mistake to think that my ambition would be fulfilled if and only if we *called* this resulting person me. How we choose to describe this case has no rational or moral significance. [...]

91 Why There is No Criterion of Identity that can Meet Two Plausible Requirements

[...] Williams claims that the criterion of personal identity must meet two requirements. I shall claim that *no* plausible criterion of identity can meet both requirements. In contrast, on the Reductionist View, the analogous requirements can be met. The argument therefore gives us further grounds for accepting this view. But Williams's argument does not assume the Reductionist View. In discussing the argument, I shall therefore briefly set aside this view. It can wait in the wings, to reappear when the action demands it.

Williams's argument develops a remark of Reid's, against Locke's claim that whoever 'has the consciousness of present and past actions is the same person to whom they belong'. This implies, as Reid writes, 'that if the same consciousness can be transferred from one intelligent being to another ... then two or twenty intelligent beings may be the same person'.[12]

Williams argues as follows. Identity is logically a one-one relation. It is logically impossible for one person to be identical to more than one person. I cannot be one and the same person as two different people. As we have seen, psychological continuity is not logically a one-one relation. Two different future people could both be psychologically continuous with me. Since these different people carmot both be me, psychological continuity cannot be the criterion of identity. Williams then claims that, to be acceptable, a criterion of identity must itself be logically a one-one relation. It must be a relation which could not *possibly* hold between one person and two future people. He therefore claims that the criterion of identity cannot be psychological continuity.[13]

Some reply that this criterion might appeal to *non-branching* psychological continuity. This is the version of this criterion that I have discussed. On what I call the Psychological Criterion, a future person will be me if he will be R-related to me, and there is no other person who will be R-related to me. Since this version of this criterion is logically a one-one relation, it has been claimed that it answers Williams's objection.[14]

Williams rejects this answer. He claims

> *Requirement (1):* Whether a future person will be me must depend only on the *intrinsic* features of the relation between us. It cannot depend on what happens to *other* people.
>
> *Requirement (2):* Since personal identity has great significance, whether identity holds cannot depend on a trivial fact.[15]

These requirements are both plausible. And neither requirement is met by non-branching psychological continuity. Williams therefore rejects this version of the Psychological Criterion.

This objection may seem too abstract to be convincing. Its force can be shown if I vary the imagined story with which I began. Consider Simple Teletransportation, where the Scanner destroys my brain and body. After my blueprint is beamed to Mars, the Replicator makes a perfect organic copy. My Replica on Mars will think that he is me, and he will be in every way psychologically continuous with me.

Suppose that we accept the Psychological Criterion which appeals to relation R when it holds in a one-one form. And suppose that we accept the Wide version, which allows R to have any reliable cause. This criterion implies that my Replica on Mars will be me. But we might learn that my blueprint is also being beamed to Io, one of the satellites of Jupiter. We must then claim that it will be me who wakes up on Mars, and that I shall continue to exist if my blueprint is ignored by the scientists on Io. But if the scientists on Io later make another Replica of me, when that Replica wakes up I shall cease to exist. Though the people around me on Mars will not notice any change, at that moment a new person will come into existence in my brain and body. Williams would object that, if I *do* wake up on Mars, whether I continue to exist there cannot depend, as we claim, on what happens to someone else millions of miles away near Jupiter. Our claim violates Requirement (1).

As I have argued, what fundamentally matters is whether I shall be R-related to at least one future person. It is relatively trivial whether I shall also be R-related to some other person. On this version of the Psychological Criterion, whether I shall be identical to some future person depends upon this relatively trivial fact. This violates Requirement (2).

Williams would add these remarks. Once we see that Teletransportation could produce many Replicas of me, who would be different people from each other, we should deny that I would in fact wake up on Mars even if they make only a single Replica. If they made two Replicas, these

could not both be me. If they could not both be me, but they are produced in just the same way, we ought to conclude that neither would be me. But my relation to one of the Replicas is intrinsically the same whether or not they make the other. Since identity must depend on the intrinsic features of a relation, I would be neither Replica even if they did not make the other.[16] [...]

[...] Suppose that My Division proceeds as follows. I have two fatally brain-damaged brothers, Jack and Bill. A surgeon first removes and divides my brain. The halves are then taken to different wings of the hospital, where they will be transplanted into the bodies of my two brothers. If we appeal to the Physical Criterion, we must claim the following. Suppose that one half of my brain is successfully transplanted into Jack's body. Before the other half can be transplanted, it is dropped onto a concrete floor. If this is what happens, I shall wake up in Jack's body. But if the other half was successfully transplanted, I would wake up in neither body. [...]

[...] What is my relation to the person waking up in Jack's body? This relation is psychological continuity, with its normal cause, the continued existence of enough of my brain. There is also very close physical similarity. As a Reductionist, I claim that my relation to the person in Jack's body contains what fundamentally matters. This claim stands whatever happens to other people elsewhere. With one revision, my view meets Williams's first requirement. He claims that whether I shall be some future person ought to depend only on my relation to this future person. I make a similar claim. Instead of asking whether I shall be some future person, I ask whether my relation to this person contains what matters. Like Williams, I can claim that the answer must depend only on the *intrinsic* features of my relation to this future person.

The Reductionist View can meet this revised version of Requirement (1). Suppose that the other operation succeeds. Someone wakes up in Bill's body. On my view, this does not change the relation between me and the person in Jack's body. And it makes at most a little difference to the importance of this relation. This relation still contains what fundamentally matters. Since this relation now holds in a branching form, we are forced to change its *name.* We cannot call each branch of this relation personal identity. But this change in the relation's name has no significance.

This Reductionist View also meets the analogue of Requirement (2). Judgements of personal identity have great importance. Williams therefore claims that we should not make one such judgement and deny another without an important difference in our grounds. On this Reductionist

View, we should take the importance that we give to a judgement of identity, and we should give this importance to a different relation. On this view, what is important is relation R: psychological connectedness and/or continuity, with the right kind of cause. Unlike identity, this relation cannot fail to hold because of a trivial difference in the facts. If this relation fails to hold, there is a deep difference in the facts. This meets Requirement (2).

In the case where I divide, though my relation to each of the resulting people cannot be called identity, it contains what fundamentally matters. When we deny identity here, we need not be denying an important judgement. Since my relation to each of the resulting people is about as good as if it were identity, it may carry most of the ordinary implications of identity. Thus it might be claimed that, even when the person in Jack's body cannot be called me, because the other transplant succeeds, he can just as much deserve punishment or reward for what I have done. So can the person in Bill's body. [...]

Notes

[The notes for this chapter have been reformatted for this volume.]

1 See, for example, [L. Wittgenstein,] *Zettel*, edited by G. Anscombe and B. von Wright and translated by G. Anscombe (Oxford: Blackwell, 1967), proposition 350: 'It is as if our concepts involve a scaffolding of facts___If you imagine certain facts otherwise... then you can no longer imagine the application of certain concepts.'

2 W. V. Quine, review of *Identity and Individuation*, ed. Milton K. Munitz, *Journal of Philosophy* (1972), p. 490.

3 Quinton ('The Soul', *Journal of Philosophy* 59, no. 15 (July 1962); reprinted in J. Perry, ed., *Personal Identity* (Berkeley: University of California Press, 1975)) defends this view.

4 R. W. Sperry, in J. C. Eccles, ed., *Brain and Conscious Experience* (Berlin: Springer Verlag, 1966), p. 299.

5 T. Nagel, 'Brain Bisection and the Unity of Consciousness', *Synthese* 22 (1971); reprinted in T. Nagel, *Mortal Questions* (Cambridge: Cambridge University Press, 1979), p. 152.

6 Ibid., p. 153.

7 I follow S. Shoemaker, *Self-Knowledge and Self-Identity* (Ithaca, NY: Cornell University Press, 1963), p. 22.

8 Quinton, 'The Soul', p. 60.

9 D. Wiggins, *Identity and Spatio-Temporal Continuity* (Oxford: Blackwell, 1967), p. 50. I decided to study philosophy almost entirely because I was enthralled by Wiggins's imagined case.

10 Cf. ibid., p. 40. I owe this suggested way of talking, and one of the objections to it, to Michael Woods.
11 See Lewis's 'Survival and Identity' [ch. 4 below] and my 'Lewis, Perry, and What Matters', both in A. Rorty, ed., *The Identities of Persons* (Berkeley: University of California Press, 1976).
12 T. Reid, *Essays on the Intellectual Powers of Man*, first published in 1785, 'Of Memory', ch. 4; reprinted in Perry, ed., *Personal Identity*, p. 114.
13 In B. Williams, 'Bodily Continuity and Personal Identity', *Analysis* 20, no. 5; reprinted in B. Williams, *Problems of the Self* (Cambridge: Cambridge University Press, 1973), pp. 19-25.
14 J. M. Shorter, 'More About Bodily Continuity and Personal Identity', *Analysis 22* (1961-2); and J. M. R. Jack (unpublished), who requires that this criterion be embedded in a causal theory.
15 Williams, *Problems of the Self* p. 20.
16 Wiggins, *Identity and Spatio-Temporal Continuity; idem*, 'Essentialism, Continuity, and Identity', *Synthese* 23 (1974); and *idem, Sameness and Substance* (Oxford: Blackwell, 1980) advance similar arguments. Some of the issues raised, which I do not discuss here, are crisply discussed in R. Nozick, *Philosophical Explanations* (Cambridge, Mass.: Harvard University Press, 1981), pp. 656–9.