

# Split brains, teletransportation, and personal identity

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## 1 What is a theory of personal identity?

Suppose that you have a person, *A*, who exists at some time, and a person, *B*, who exists at some later time. A theory of personal identity is a theory which tries to answer the question: what does it take for *A* and *B* to be the *same* person?

Note that this is not a theory which described how we usually recognize and identify people. For example, I usually recognize you by some combination of your appearance and where in the room you sit. But of course two of you could, in an elaborate prank, change seats and have extensive reconstructive surgery which made each of you look much like the other. But this would not mean that either of you *became* the other person.

It is surprisingly difficult to come up with a theory of personal identity which is not open to obvious objections. For example, you might be at first inclined to suggest that *A* and *B* are the same person if and only if they have the same body. But now consider 'body swapping' examples of the sort you might see in movies. Many people think that this sort of thing at least makes sense, and so is in one sense possible; but if it is, doesn't that mean that *A* and *B* might be the same person even if they do not share a body?

Furthermore, what does it even mean to have the same body? You're constantly gaining and losing cells, so that your body now has hardly anything in common with your body 10 years ago. But does this mean that you really are not the same person now as you were then? Surely not.

A second initial thought is that *A* and *B* are the same person if they have the same personality, or the same consciousness, or the same memory. But, again, there are problems

here. You don't have the same memories, or exactly the same personality, as you had a year ago; but that doesn't mean that you are not the same person. Suppose that you met someone who, by some strange chance, had personalities and memories more similar to yours now than yours now are to the you of 5 years ago. Would you think that that person was identical to you, or as much the same person as you as the you of 5 years ago?

## 2 Parfit's example of teletransportation

Here's a potential solution to the problems with the 'personality' theory: maybe we should focus on examples of persons at consecutive times, or near enough. Maybe for such pairs of persons at times we can say that if they're similar enough psychologically, and if the psychological states of the later one are caused by the psychological states of the earlier one, they are the same person. Then we could say, in the above case, that *A* and *B* are the same person if there is some chain leading from the former to the latter made up of 'consecutive persons' of this sort.

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.

Parfit's description of simple teletransportation.

This seems to have the virtue that it makes sense of the possibility of cases of teletransportation, of the sort that Derek Parfit described in his book, *Reasons and Persons*. Reading about this sort of example, it seems very plausible that the person who emerges from the teletransporter is the same as the person who entered. And this fits well with the sort of 'personality' theory sketched above:

the person who emerges from the teletransporter is psychologically very similar to the person who enters, and the psychological states of the person who emerges do seem to be caused by the psychological states of the person who entered.

However, as Parfit noticed, these cases are not as unproblematic for the psychological theory as they seem.

In this version of the case, the psychological theory seems to lead to the conclusion that the person who enters the teletransportation machine is identical to both the person who is on Mars, and the person who is still on earth. But that can't be right, since the person on Mars and the person on earth are clearly different people.

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'.  
 ... the attendant man who asks to speak to Parfit's description of the 'branch line case.'

Assuming the above psychological theory, we can state the resultant paradox like this:

1. If  $A$  and  $B$  are separated by a very small amount of time, are very similar psychologically, and are such that the psychological states of  $B$  causally depend on the psychological states of  $A$ , then  $A = B$ .
  2. The person who enters the teletransporter = the person who is on Mars after the New Scanner runs. (1)
  3. The person who enters the teletransporter = the person who leaves the teletransporter on Earth after the New Scanner runs.
  4. If  $x = y$  and  $y = z$ , then  $x = z$ . (Transitivity of identity)
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- C. The person who is on Mars after the New Scanner runs = the person who leaves the teletransporter on Earth after the New Scanner runs.

The problem is that the conclusion seems clearly false. Does this show that premise (1), which states the 'personality' theory, is also false?

### 3 Cell replacement

This might incline you to adopt some version of the 'body' theory of personal identity. But this view too has problems. Suppose that someone gets an organ transplant. Clearly, this will not result in the cessation of their existence, even though part of their body was replaced. But what if half the organs in their body are replaced? Would they still continue to be the same person? Can you see a way to recreate the problem we saw with the transitivity of identity for this view?

Should the proponent of the 'body' theory link identity to the whole body, the brain, or what? If the brain (or part of it), does this mean that brain replacement surgery is, in principle, impossible to survive, and always results in the creation of a new person?

A different version of the problem: the proponent of the ‘body’ theory will surely admit that you could have 1% of the cells in your body replaced, and must deny that you could have 99% of the cells in your body replaced. So, somewhere there must be a dividing line, such that changing that many or more of your cells would result in your ceasing to exist. But is this really plausible? Could it really be the case that if 46.7% of the cells in your body are replaced you remain the same person, but that replacing 46.8% of your cells results in your death, and the creation of a new conscious being?

#### 4 Split brain patients

The examples of teletransportation and cell replacement pose problems for particular theories of personal identity. Parfit thinks that the examples of split brain patients — which are real, not imagined — should cause us to question our views about the sorts of things that people are.

An explanation of the split brain data, and the evidence that there is more than one stream of consciousness.

These cases give rise to the following paradox:

1. In split brain cases, the patient will give reports of two different psychological episodes — say, seeing blue and seeing red — which must have occurred at the same time.
  2. The split brain patient will say that they are aware of only one of these conscious episodes.
  3. There are two separate streams of consciousness belonging to the patient. (1,2)
  4. One person cannot have two separate streams of consciousness; for each stream of consciousness, there must be a separate person.
  5. The split brain patient, while their corpus callosum is severed, is more than one person. (3,4)
  6. If you repaired the patient’s corpus callosum, you would not be destroying a person; in severing the patient’s corpus callosum, you would not be creating a person.
  7. The split brain patient, before having their corpus callosum severed and after having it repaired (if this were possible) is more than one person. (5,6)
  8. You are I are in every relevant respect just like the split brain patient, before having their corpus callosum severed and/or after having it repaired (if this were possible).
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- C. You and I are more than one person. (7,8)

There’s a sense in which this conclusion does not make sense. You can understand the intended conclusion as the claim that our concept of a person is somehow inherently unstable, and leads us to contradiction when we consider cases such as split brain patients.

## 5 Responses to the problems

Parfit thinks that the appropriate response to these problems is to adopt the *bundle theory*, which you can think of as a version of the four-dimensionalist theory that we discussed in connection with the problem of the statue and the clay. In explaining the Bundle Theory, Parfit compares persons to clubs; and says that the identity of persons over time is analogous to the identity of clubs over time. If this is true, what's the analogue of the members and rules of the club in the case of persons?

Consider the version of the teletransportation case in which you emerge on earth, and see 'yourself' also emerging from the machine on Mars. Now suppose you find out that the machine has caused irreversible problems with your nervous system which will cause you to die in 10 minutes. Should the existence of your clone on Mars make you feel better about the situation? What should the bundle theorist say? Is there a big difference between the case in which the person on earth vs. the one in which the person on Mars survives?

Suppose you are a dualist, which means that you think that persons are immaterial things distinct from their bodies. How should you respond to the above problems?

What if you think that persons are material beings, but you do not want to be a bundle theorist? What should you say about, for example, the cell replacement example?