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The Remnant-Person Problem

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abstract

Animalism, the view that we are animals, appears to have the troubling implication that removing your brain from your head would create a “remnant person”, who would be destroyed when put into a new head. The problem is serious and has no really satisfying solution. But it has nothing to do with animalism as such, and afflicts animalism’s main rival in equal measure.

keywords

animalism, brain transplant, Mark Johnston, personal identity, remnant person

1. The transplant objection

Animalism is the view that you and I and other normal human people are animals--biological organisms.¹ It is that we are animals not merely in some loose sense--that we have animal bodies, say--but in the simplest and most straightforward sense. There is a certain human animal, and that animal is you.

The most common objection to this view is that it conflicts with widespread and deeply held beliefs about what would happen to us in certain imaginary cases. Suppose your brain were put into my head, and my own brain destroyed. It seems that the resulting being would remember your life and not mine. He would have your beliefs, preferences, plans, and other mental properties, for the most part at least. In other words, he would be psychologically continuous with me. Who would he be: me with a new brain, or you with a new body? (Or someone else altogether?)

Animalism implies that he would be me. That’s because the operation does not move an animal from one head to another, but simply moves an organ from one animal to another, just as a liver transplant does. (I return to this claim in §5.) One animal loses its brain and remains behind as an empty-headed vegetable; another has its brain destroyed and replaced with yours. And according to animalism you are the donor animal and I am the recipient: you get an empty head and I get your brain.

This means that the operation would destroy my knowledge, life plans,

¹By ‘animals’ I mean those organisms that are not plants, fungi, bacteria, or protocists. Note that Johnston uses the word ‘animal’ to mean something that is not an organism, but rather a thing “constituted by” an organism distinct from it (2007: 55).

preferences, and character traits, and give me yours instead. It would erase all my memories of my own past and replace them with memories of yours: of journeys I never took, conversations I never had, people I never met. It would fill my head with false beliefs, making me convinced that I lived in your house, worked at your job, and was the child of your mother. I should become systematically mistaken about who I am and my place in the world. As for you: even if the operation didn't kill you outright, it would deprive you of your knowledge, memories, plans, and preferences--nearly all that matters.

In my experience, those presented with the transplant story have an almost irresistible urge to reject this description. It just sounds wrong to say that putting your brain into my head would give me a new brain full of false memories. Surely the one who got your brain would be you. A liver transplant moves an organ from one person to another, but a brain transplant is not really an organ transplant at all, but a "full-body transplant". It moves a person from one organism to another. (As for me: when the surgeons remove my brain before destroying it, they remove me from my own head, just as they remove you from yours.)

But this attractive alternative description is incompatible with animalism. It implies that you and the animal--the one you would be if you were any animal at all--could go your separate ways. And a thing and itself can never go their separate ways. So the alternative description implies that you are one thing and the animal is another. Even if you never have a brain transplant, you have the property that no animal has, namely being such that you would move to another animal if your brain did.² But a thing cannot both be an animal and have a property that no animal has. Call this the transplant objection to animalism.

2. A brief clarification

Some readers may be assuming that the operation would have to move some conscious, intelligent being from one animal to another.³ That being would start out with the ability to move your limbs and see through your eyes, then become able to move my limbs and see through my eyes (or the limbs and eyes that were once mine) instead. Animalism, the idea goes, simply denies that this conscious being would be you, insisting instead that you would be the brainless organism left behind. That looks unattractive. If some conscious being really did move from your head to mine, and was psychologically continuous with you afterwards, there is good reason to suppose that it would be you.

But no animalist would accept that there is any such being. Why suppose that moving your brain to my head would move a conscious nonanimal--a thinking being in addition to the animal? That is a substantive metaphysical claim, and it gets no support from reflecting on who would be who in imaginary cases.

²If there are no such modal properties as this (as counterpart theorists say), or if we don't have them, the argument fails and the objection evaporates.

³This assumption is implicit in Shoemaker 1984: 108-111, for example.

transplant objection relied on that claim, it would have to begin with some reasoning for it; yet those who make the objection see no need for such reasoning. That the operation moves a conscious being from one head to another is a consequence of the transplant objection, but not one of its starting points.

3. Responses to the Transplant Objection

It can be hard to believe that a brain transplant is metaphysically analogous to a liver transplant. That might make it hard to believe that we are animals.

But this hardly settles the matter. The transplant objection gets its force from the general principle that anyone who is psychologically continuous with you (in the way that the recipient of your brain in the transplant story is) must be you. Yet most opponents of animalism concede that this principle is false.⁴ If each half of your brain were transplanted into a different head, both resulting beings would be psychologically continuous with you. Each would be convinced that she was you. Yet they could not both be you: there is only one of you, and one thing cannot be numerically identical to two things. At least one of them would be systematically mistaken about who she is and her place the world. So the critics of animalism face a transplant objection of their own. If animalism has unwelcome consequences in “single” brain-transplant scenarios, its critics must accept similar unwelcome consequences in “double” transplants. And whatever those critics can say by way of defending their view against the double-transplant objection can be used to defend animalism against the original transplant objection.

Further, if the transplant objection makes it hard to believe that we are animals, other considerations make it at least as hard to believe that we are not animals (Olson 2003). There is a human animal sitting where you are. It has your brain, and shares your history (for the most part, anyway). It behaves exactly as you do in both actual and counterfactual situations. That ought to make it conscious and intelligent--just as intelligent as you are. But if you are not an animal, this would make you one of two conscious and intelligent beings sitting there and reading this. More generally, there would be two conscious and intelligent beings wherever we thought there was just one--two people, if being conscious and intelligent in the way that you are suffices for being a person. Only one of them would persist by virtue of psychological continuity, and would go with its transplanted brain. How could you ever know which person you are--the animal person or the nonanimal person? Any reason you may have to suppose that you are the nonanimal looks like a reason for the animal to think the same about itself. That is something no one would accept. And if for all you know you may be an animal, then for all you know you might not be the one who would get your transplanted brain, undermining the

⁴Friends of the temporal-parts ontology can accept the principle, or something close to it (Lewis 1976). They say that in “fission” cases, your preoperative temporal parts are shared by two people, who differ in their postoperative temporal parts. There are two of you all along, and the surgeons separate them.

transplant objection.

Opponents of animalism have two possible replies. One is to deny that any human animal (or presumably any other organism) is ever conscious and intelligent, and try to explain why. This would imply that you are the only conscious, intelligent being there. The other is to accept that there are two conscious, intelligent beings, and try to explain how you can nevertheless know you're the one that's not an organism.⁵ Either reply will need to include an account of what sort of beings we are, if not organisms. Call this the "thinking-animal problem". It makes the transplant objection look rather insignificant.

4. The Remnant-Person Problem

Mark Johnston has pointed out that the transplant story raises another problem for animalism, independent of the transplant objection.⁶ Think of your brain in mid-transplant, removed from your head but kept alive. (It has to be composed of living tissue, else the transplant will fail.)

Suppose it's possible for the brain, in this condition, to support thought and consciousness of the sort you had before the operation. This assumption is widely taken for granted: it is the basis for all "brain-in-a-vat" thought experiments. In reality, there is nothing obvious about it. It certainly doesn't follow from the assumption that the brain carries psychological continuity, in that the person who had it at the end of the operation would be psychologically continuous with the donor. Someone ought to offer an argument for this claim. But I will concede it for the sake of argument and see what follows.

If the detached brain supports thought and consciousness, there has to be a being whose thought and consciousness it is. (Otherwise we ought to wonder whether there are any people at all, undermining both animalism and its rivals.) This being would seem to be your brain itself, or perhaps a spatial or temporal part of it. Or it might be something that your brain or a part of it "constitutes". (I will return to constitution later.) Because this thing (we are supposing) would be psychologically more or less like you, that should make it a person--a radically maimed person, we might say. Johnston calls it a remnant person. Roughly, someone is a remnant person at a time just if she is a wholly organic person but not an organism or a thing constituted by an organism then, and this condition results from cutting away a portion of a normal human person.

This looks like trouble for animalism. Animalism seems to imply that the remnant person would not be you: you would be the brainless vegetable left behind. The problem is not that the remnant person seems to be you. That would

⁵Shoemaker (1999, 2011) tries to explain why animals cannot have mental properties; Noonan (2010) tries to explain how we can know that we're not the animals thinking our thoughts.

⁶Johnston 2007. I described a version of the problem earlier (Olson 1997: 120f.), but Johnston develops it much more forcefully.

be just a variant of the original transplant objection. Nor is the problem that the remnant person would be a person but not an organism. That is perfectly compatible with animalism, which does not say that all people are organisms, but only that we human people are: it allows that there may be immaterial gods or angels. The trouble comes when we ask where the remnant person, if she were not you, could have come from. She could hardly have existed before the operation. If she had, and supposing she was a person then, there would have been two people within your skin at once--you, who according to animalism became a brainless vegetable, and the remnant person, who became a naked brain. We don't want to say that. The alternative seems to be that the operation brings the remnant person into being. But we don't want to say that either.

Why not? For one thing, it seems that there are only two people in the transplant story--you and I--even if we disagree about what happens to them. If the remnant person were someone new, there would be three: you, me, and the remnant person created by removing your brain from your head. Or rather four: if removing your brain creates one new remnant person, then removing my brain to make room for yours creates another. There would be you, me, and the two remnant people created when our brains are removed. That's two too many.

And it's hard to believe that removing someone's brain from her head would create a new person. As Johnston puts it:

You can't bring a person into being simply by removing tissue from something..., unless that tissue was functioning to suppress mental life or the capacity for mental life. A developing fetus might have a massive tumor in its developing brain, which suppresses its mental life, and perhaps even its capacity for mental life. Given that, we can understand how removing the tumor could allow a person in Locke's sense to be present for the first time. But how could removing a sustaining [head and] torso bring this about? (2007: 47)

If animalism really does imply that the transplant operation would bring a remnant person into being, it violates the attractive principle that you cannot bring a person into being merely by cutting away harmless tissue: call it the creation principle.

Now most opponents of animalism will reject this principle as stated (Snowdon 2014: 235f.). Suppose each of your cerebral hemispheres were transplanted into a different head. The result would presumably be two people, each psychologically continuous with you to an extent that would suffice for her to be you (according to the transplant objection of §1) were it not for the presence of the other. But you could not be both those people, since they are distinct from each other. So the operation must have brought at least one of them into being. It has created a person by cutting away tissue that did not "suppress mental life or the capacity for mental life." If this is a problem, it's not one that can be solved by rejecting animalism.

But we may be able to revise the creation principle to make it consistent with the anti-animalist position that Johnston and others want to promote. Perhaps you cannot bring a person into being merely by cutting away sustaining tissue. In the double transplant you don't create a person merely by removing sustaining tissue; you also have to cut the hemispheres apart.

In any event, the problem has another side that Johnston doesn't mention. Imagine once again that your brain is moved from your head to mine and the utilities connected in such a way as to make the resulting person more or less normal. (This is likely to exceed the capabilities of any possible human surgeon, but never mind. Archangels could do it.) If I am an organism, this person is me. But I am not the former remnant person (the one created, or made a remnant person, by removing your brain from your head). I was never a detached brain. More generally, nothing can be a detached brain at one time and an organism at another; you can't make a naked brain into an organism by putting it into a new head. Before I was given your brain, I was a brainless vegetable. So according to animalism the remnant person is not me. But then what happens to the remnant person when she goes into my head? Surely she doesn't continue existing but cease to be a person. Nor does she come to be one of two people within my skin. It looks as if she must cease to exist. That would make it impossible to carry out a successful brain transplant without killing someone. And isn't providing a radically maimed person with the parts she was missing a funny way of destroying her? Animalism appears to violate the attractive principle that you cannot destroy a person merely by supplying her with sustaining tissues: call it the destruction principle.

So the new objection to animalism is that it violates the creation and destruction principles. You can't create a person just by cutting away sustaining tissues, or destroy one just by providing them. Yet animalism (the objection claims) implies that you can do these things. (It also implies that there are four people in the transplant story, whereas there are clearly just two.)

This "remnant-person problem" is not merely the original transplant objection put differently. One version of that objection is that the remnant person who would result from removing your brain from your head ought to be you, as she would be psychologically continuous with you. (She would think she was you.) This would rely on the principle that anyone who is psychologically continuous with you must be you, which, as we saw earlier, is doubtful. And animalism can explain why the remnant person would not be you: you are an animal, and no animal can become a remnant person. But Johnston's objection does not require that the remnant person would have to be you. His claim is simply that the operation could not have brought her into being. And animalism does nothing to explain how the operation could bring a person into being, or how implanting a remnant person into a new head could destroy her.

To explain how the transplant operation could create and then destroy

someone, we should need an account of the metaphysical nature of remnant people--something that would tell us, among other things, when they come into being and pass away. But animalism offers only an account of our own metaphysical nature: that of normally embodied human people. It says nothing about remnant people, who would not be organisms.

(Matters may be even worse than this. If a remnant person would not be an animal, there could be human people who are not animals. In that case we ought to wonder why there is no such nonanimal person associated with each normal human being. If there were, then either there would be two people associated with each human being--an animal and a nonanimal person--or else no human person would be an animal.)

I have no account of why removing someone's brain from her head should bring a new person into being, or why putting it back would destroy one. I like these claims no better than Johnston does. If animalism implied them, this would be more than just a surprising and counterintuitive consequence. (Every important view has those.) It would be a metaphysical mystery.⁷ I think animalists should deny that any remnant person is created or destroyed in the transplant operation. What they need to do is explain, in a way consistent with these constraints, what sort of thing the remnant person would be, where she could come from, what would happen to her at the end of the operation and why, and how she would relate to you and me. I will discuss three sorts of proposals for doing this. One is that the remnant person who would result from removing your brain from your head would be you (§§5-7). The second is that she would be your brain (§8). The third is that there would be no remnant person at all (§9).

5. Accidentalism

How could the remnant person be you, the donor organism? One thought is that despite appearances, a human organism really would go with its transplanted brain: the operation would not transfer an organ from one animal to another, but pare an animal down to a naked brain and later supply it with new peripheral parts to replace the ones cut away.⁸ The claim is not that a detached brain would be a sort of stripped-down organism, but that cutting away your vital organs would temporarily make you a nonorganism.

This is consistent with animalism, which is the thesis that we are organisms, not
⁷Aristotelianhylomorphists may see no mystery. On their view, a detached and functioning brain might be a substance but an undetached brain would not be; and a substance is a substance essentially. That would explain why the operation must create and then destroy the remnant person (Toner 2014: 84). This view is hard to understand, and I cannot explore it here.

⁸The proposal would somehow have to avoid the impossible implication that a thing can come to be something that was previously only a part of it--that is, that a thing and another thing can become a thing and itself (van Inwagen 1981).

that we are organisms essentially. Whether an organism must be essentially or permanently an organism is independent of whether you and I are organisms. Because it implies that no remnant person would be created or destroyed in the operation, it would solve the remnant-person problem. For that matter, it would answer the original transplant objection by implying that you would go with your transplanted brain. Both objections would be based on a natural but false assumption about what it takes for a human animal to persist through time. Because the proposal implies that human animals are only accidentally animals (in that they can exist without being animals), I will call it accidentalism.

Although this sort of view is sometimes mentioned (Johnston 2007: 51-54, Hershenov 2008), I have never met anyone who actually believed it. It's not hard to see why. No organism would go with its transplanted liver: if you remove an animal's liver, it simply ceases to be a part of the animal. And the brain's role in the persistence of an animal appears little different from that of the liver. If anything, an animal looks less likely go with its transplanted brain than to go with its transplanted liver: the medics say that a human being can survive longer without a brain than without a liver (Shewmon 2001).

But the proposal is not merely unprincipled. Consider that the empty-headed thing remaining after your brain is removed may still be alive. That is, it may be a living organism. In that case it would apparently have the same life, in Locke's sense of the word, that the original organism had: the original organism's life-sustaining functions would have continued uninterrupted throughout the operation in the brainless remainder. And if an organism's biological life carries on, we should expect it to continue to be the life of that same organism (van Inwagen 1990: 142-158). How could an organism be outlived by its own biological life? Yet accidentalism implies that this brainless animal would not be the original organism.

That would make it pretty mysterious what the persistence of an organism could consist in. Our usual judgments about what happens to an organism when parts are cut away would be seriously unreliable. Think about how many human animals there are in the transplant story. Everyone takes there to be two: the donor and the recipient of the transplanted organ. But according to accidentalism there are four. One animal--you--starts out full-sized, is then pared down to a brain, and later acquires my noncerebral parts, thereby regaining its previous size. The empty-headed animal left behind when your brain is removed is a second organism. I am a third. Removing my brain to make way for yours reduces me to a naked brain, leaving behind a fourth animal, which then ceases to be an organism (or perhaps to exist at all) when your brain goes into its head.

This would also introduce a new trouble just as pressing as the remnant-person problem. The empty-headed vegetable left behind when your brain is removed could be an organism. Where could it have come from? If it existed before the operation, then either it was a second organism sharing your skin, or else removing your brain made it into an organism. Neither option has any plausibility. The

alternative is that the operation brought it into being. But can you really create an organism merely by cutting away what would otherwise have been one of its organs? Or suppose the surgeons put your brain back into your head. According to accidentalism, you then cease to be a naked brain and become a full-sized human animal once more. But what happens to the empty-headed organism into which your brain is implanted? The reimplantation could hardly bring it about that there are two human animals within the same skin. It looks as if the empty-headed organism must cease to exist. But how could you destroy an organism merely by supplying it with the organ it was missing? If we have to say all that, we might as well reject the original creation and destruction principles.

6. Scattered Animalism

Here is another view on which the remnant person would be you. Suppose that removing your brain neither makes the animal into a brainless vegetable nor reduces it to a naked brain, but rather changes it from a connected object to a disconnected or “scattered” one. The organism comes to be composed of two detached parts, the brainless vegetable and the naked brain. It may thereby cease to be an organism, making this proposal a variant of accidentalism. The thoughts realized in the brain would then be the thoughts of that scattered object. So the remnant person is not the brain or anything the size of a brain--no such being is ever a person--but a thing composed of the naked brain and the brainless vegetable. If your brain is later transplanted into my head, it then ceases to be a part of the remnant person (you) and becomes a part of me, another organism, and the thoughts realized in it become my thoughts. You then become a brainless vegetable.⁹ No remnant person is created or destroyed in the course of the operation, and there would be only two people in the story, you and I, just as there appear to be. Call this “scattered animalism”.

It is another friendless view. Like accidentalism, it threatens to imply that there are four human organisms in the transplant story. Two, you and I, become scattered when their brains are removed (and may cease thereby to be organisms). And the two brainless vegetables that this removal leaves behind may also be organisms. That, again, is two too many. Also like accidentalism, it implies that removing your brain could create a new organism--the brainless vegetable--and that putting your brain back in your head would destroy that organism, violating analogues of the creation and destruction principles.

Nor would it solve the remnant-person problem in its full generality. Suppose your brain is removed and that this makes you a scattered object composed of a detached brain and a brainless vegetable. Now let a new brain be implanted into your head. The new brain becomes a part of the object that was previously a brainless vegetable and is now definitely an organism. This makes the new brain a part of you. (The organism of which it is a part is either you or a part of you, and a

⁹Again, the proposal would need to avoid the problem raised in note 8.

part of part of something is itself a part of it.) But what about your original brain? Would it still be a part of you? Would you have two brains at once? If so, you could have any number: the new brain could itself be put into the vat and replaced with a third, and so on. No one would want to say that. The alternative is that your original brain would cease to be a part of you when a new one is put into your head. (Never mind why.) But in that case your original brain would come to be (or constitute) a remnant person other than you, raising the original problem once more.

7. The Remote-Thought Hypothesis

A third view on which the remnant person would be you is consistent with there being just two organisms in the transplant story. When your brain is removed it is no longer a part of you. You stay behind with an empty head. If that organ were later put into my head, it would become a part of me, just as animalism leads us to expect. But the remnant person--the subject of the thoughts realized in the naked brain--is not that brain itself, but you, the now-brainless organism. Although the brain is no longer a part of you, you still use it to think. The thoughts realized in it are not its own--brains don't think--but yours. You think "remotely", in that your thought processes go on entirely outside your boundaries. (Thus, thinking and consciousness can be extrinsic properties.) Call this the remote-thought hypothesis. It has a real advocate: Rory Madden (2011) proposes it to defend animalism against the transplant objection.

What makes the brainless vegetable the thinker of the thoughts going on in what was once its brain? Madden's idea is that the reference of thoughts and utterances is whatever the best Davidsonian interpretation assigns to them--that is, the best way of assigning them content. And one of the desiderata of such an interpretation is to maximize knowledge. If we took the autobiographical beliefs realized in the naked brain to refer to the brain itself, we should have to conclude that most of them are false and so not knowledge, since most of the things you believe about yourself are not true of your brain. The remnant person might have beliefs she would express like this: I was born in Nether Crozzledene; I attended St Brutus's Primary School; I am tall enough to reach the light fixture without a ladder. And although these things may be true of you, they cannot be true of your brain: a brain cannot be born or go to school or be tall enough to reach light fixtures. So if we are to interpret these beliefs in a way that would make them true, we must take them to refer to you and not to the detached brain.

Some of the autobiographical beliefs you acquire while your brain is detached may be true if they refer to the brain and not if they refer you, the organism. Suppose your brain is kept for some time in one of those nutrient vats that philosophers like to imagine, and that its keepers enable the remnant person to "see" by attaching the brain to a camera mounted on the edge of the vat. This may give that person a belief she would express by saying, "I am in a room with a vat in

it.” If this belief referred to you, the brainless vegetable lying in another room without a vat, it would be false, whereas if it referred to the brain it would be true. Still, far more of the remnant person’s autobiographical beliefs will count as knowledge if they refer to the organism than if they refer to the brain.

Now if there were a thinking being that shared its matter with the organism until its brain is removed and with the brain thereafter, we might be able to give an even better interpretation by assigning it as the reference of the remnant person’s autobiographical beliefs. On that interpretation, such beliefs acquired both before and after your brain is removed may come out true. But as we saw in §2, the transplant story provides no reason to suppose that there is any such being, and no animalist would accept it.

Suppose, then, that the remnant person’s autobiographical thoughts would refer to you, the brainless animal. Madden infers from this that they would be your thoughts. In that case you, the animal, would be the remnant person, solving the problem.

The remote-thought hypothesis raises many questions.¹⁰ But even if it’s true, it cannot solve the remnant-person problem. As Madden concedes, his proposal implies that if your brain is kept alive in the vat for long enough, and comes to support enough new autobiographical beliefs true of it but not of you (the organism), their reference will eventually shift from you to the brain. At that point the brain will become the thinker of those thoughts and a remnant person distinct from you, reinstating the original problem.

8. Remnant Cerebralism

Our question is what animalists can say about the remnant person who would result from removing your brain from your head. So far I have considered views on which the remnant person would be you. Another thought is that she would be your brain—that is, the thing that is now in fact your brain. (Not something constituted by your brain, but the brain itself.) In that case again the operation would not bring a person into being or destroy one, making animalism compatible with the creation and destruction principles. Call this remnant cerebralism.

Of course, your brain is not a person now (not according to animalism, anyway). Otherwise there would be two people sitting there and reading this, you (the organism) and your brain. More generally, there would be two people wherever we

¹⁰One such question is why first-person thoughts must always refer to the being whose thoughts they are--the one thinking them. Most temporal-parts theorists say that when your current stage thinks, “I fell off the roof,” it refers not to itself--the stage didn’t even exist when the fall took place--but to the temporally extended person of which it is a part. (I discuss this sort of view in Olson 2007: 37-39, 119-122.) If first-person thoughts need not refer to their thinkers, then the remnant person could be the brain, as she appears to be, even if Madden is right to say that the first-person thoughts she has while in the vat would refer to the brainless organism.

thought there was just one. Transplanting your brain would transfer the “brain person” to a new organism and leave the “animal person” behind with an empty head (even if she would no longer count as a person in that condition), leaving you to wonder whether you yourself are the brain person, who would go with the transplanted brain, or the animal person, who would not, and how you could ever know. To avoid these troubles, the proposal has to be that removing your brain from your head would change it from a nonperson into a person. And because there would not be two people within my skin after the transplant, putting it into my head would make it a nonperson once more.

So remnant cerebralism replaces the claim that cutting away sustaining tissues can bring a person into existence with the claim that it can make a nonperson into a person. And restoring those tissues would not destroy a person, but merely make her a nonperson. But that’s hardly any easier to believe. What’s more, the proposal implies that there are four people in the transplant story--you, me, and our two detached brains--yet there appear to be just two.

It also raises an urgent question: why is your brain not a person now? The most natural answer is that it hasn’t got the right mental properties: to be a person, as Locke said, is to be intelligent and self-conscious, and your brain is not now intelligent and self-conscious. Presumably it has no mental properties at all. But why not? It appears to have all the physical infrastructure needed for mentality: it is connected to its environment via sense organs and motor nerves; and it has the right sort of history to be a thinker, if that matters. It would think, according to cerebralism, if it were removed from your head and suitably cosseted. It seems to follow that what prevents your brain from thinking now is nothing more than its fleshy surroundings. An embodied brain is no more sentient or intelligent than a liver, but remove it from its natural habitat and it will blossom instantly into a sophisticated rational being. And putting it back where it belongs would restore it to its former state of oblivion. This would mean that the tissues surrounding the brain really do (as Johnston would say) “suppress mental life or the capacity for mental life.” They don’t suppress it altogether: they don’t prevent the organism from thinking. But they prevent the brain from thinking (Hawley 1998). Yet surely you cannot give something the capacity for thought and consciousness merely by cutting away sustaining tissues, or deprive it of that capacity just by providing them. That looks as compelling as the original creation and destruction principles.

Or maybe your brain does now think, and shares all your mental properties. It thinks not merely in some attenuated or derivative sense, by being the organ responsible for your thinking, but strictly speaking. Yet it might not be a person now because it is a proper part of you: personhood is “maximal”, in that no person can be a proper part of another person.¹¹ Removing your brain from your head would

¹¹Burke 2003. The idea that personhood is a maximal property is familiar from the ontology of temporal parts, according to which you think at a moment only insofar as the momentary temporal part or “stage” of you located then thinks strictly

overcome this obstacle and thus transform it into a person. Though this would still imply that there are four people in the transplant story (the two organisms and the two detached brains), it would at least explain why there are four.

This new proposal is that before the operation, you, the organism, are a person, despite thinking only in the derivative sense of having a thinking brain as a part. Your brain is not a person, even though it thinks nonderivatively. (Why you would be a person and your thinking brain would not be, rather than vice versa, is an obvious question left unanswered.) Removing your brain makes you into a nonperson by depriving you of your thinking part, and makes your brain into a person by bringing it about that it is no longer a part of a person. So the operation does not create a person, or enable a previously unthinking being to think; nor would putting your brain into my head destroy a person or render one unable to think. This would explain where the remnant person comes from in a way consistent with the creation and destruction principles.

It would follow that no actual person has, strictly and nonderivatively, the mental properties characteristic of personhood (there being in fact no remnant people). And none of the beings that really have got those properties--normal embodied brains--are people. This is at odds with what most of us take the word 'person' to mean. It would deprive personhood of any psychological or normative interest. More importantly, it would make animalism a mere linguistic variant of the view that we are brains. Given that our brains are the true thinkers of our thoughts, the difference between saying that we normal human people are those thinking brains and saying that we are the organisms of which they are parts is merely verbal. It is a disagreement about which beings our personal pronouns and proper names denote and fall within the extension of the word 'person', rather than about the nature of those beings themselves. No animalist would accept this. (I will return the view that we are brains in the final section.)

9. Brain Eliminativism

I turn now to the proposal that there is no remnant person in the story. This would be so if a naked brain could not think (or coincide with a thinking being)--but I have conceded for the sake of argument that this is possible. The alternative is to deny that there really are any such things as naked brains. (Whether there would be such things as embodied or undetached brains is left open.) There are particles "arranged cerebrally", but they don't compose anything. (Some things, the x_s , compose something y if and only if each of the x_s is a part of y , no two of the x_s share a part, and every part of y shares a part with one or more of the x_s .) So there

speaking. Despite now being mentally indistinguishable from you, that stage is not a person--but it would be were it not preceded or followed by stages psychologically connected with it. (This follows from the definition of 'person' given in Lewis 1976.) The reason why a person-stage is not a person is simply that it has the wrong neighbors.

is no naked brain in the transplant story. The only material things in the vat are particles. But no particle can think. Maybe certain particles could think collectively, even if no individual particle can; but in that case too there is no thinker in the vat, and thus no remnant person. (Or none that is a material thing. I won't discuss the view that remnant people might be immaterial things.) Call this view brain eliminativism.¹²

It may be hard to believe that particles arranged cerebrally in a vat would not compose anything. And if they don't, we have to wonder whether particles "arranged organically" compose anything. Yet animalists have to accept that particles arranged organically compose something, namely organisms. If we are organisms, then there must be organisms; and whatever Aristotle may have thought, we know that organisms are composed of particles. But why should the inventory of being include human animals but not naked human brains? What's the difference?

As far as I can see, the only way to answer this question is to say in what circumstances particles ever compose something. How, in general, do smaller things have to be arranged and situated for them to add up to something bigger? There are two "extreme" answers. Compositional universalism says that any things, no matter what their nature or arrangement, compose something: composition is "automatic". Compositional nihilism says that there are no composite objects, but only mereological simples (things with no parts other than themselves). Animalism is incompatible with nihilism because no organism is a simple; and for reasons I have discussed elsewhere (2007: 229-232), it sits uneasily with universalism. Animalists need to say that some particles compose something and others don't. But which ones, and why? Very few answers to this question have been proposed. Of those few, the best may be van Inwagen's: that particles compose something if and only if their activities constitute a biological life (1990: 81-97). This implies that the only composite objects are living organisms. That is of course compatible with animalism. And it would explain why there are no remnant people: a remnant person would be neither an organism nor a simple.

Drastic though it may be, brain eliminativism is not obviously any worse than the other solutions to the remnant-person problem.

10. The Generality of the Problem

These proposals are a bit wild, and I wish I had a better one. But this is a reason to reject animalism only if our being animals is the source of the problem. I don't think it is.

Consider Johnston's own view.¹³ He says that each of us is a nonorganism

¹²Its advocates include van Inwagen (1990) and Merricks (2001); I discuss some of its consequences in Olson 2015.

¹³Johnston 1987, 2007: 55-58. I'm not certain that I have correctly understood Johnston, but this is my best guess.

constituted by an organism, where for one thing to constitute another they must at least be numerically distinct yet made up of the same matter.¹⁴ In the transplant story you are constituted first by an organism, then by a naked brain, then by another organism--the one that previously constituted me, and which your brain becomes a part of. You go with your transplanted brain, avoiding the transplant objection; and the remnant person is you, avoiding the remnant-person problem.

“Constitution” views of this sort are the most popular alternative to animalism. But they face their own variant of the remnant-person problem. If the organism sitting there now constitutes a person, then your brain--the undetached brain now in your head--does not. Otherwise the person it constituted would be a second person in addition to you. More generally, every full-sized human person would contain a brain-sized person within her skull, and you ought to wonder whether you were the big person or the little one. To avoid this trouble, constitutionalists say that normal human animals constitute people--conscious, thinking beings--and undetached brains do not. But your brain would constitute a person were it removed from your head and kept alive in a vat. It follows that you can cause a brain to constitute a person merely by cutting away sustaining tissues, and render it unable to do so by providing it with such tissues. That looks about as mysterious as the view that you can create a person by cutting away sustaining tissues and destroy one by supplying them. It also raises hard questions: Why would merely cutting away the sustaining tissues cause a brain to constitute a thinking being? Why would restoring them prevent it from doing so? And why doesn't your brain constitute a person now, in its normal state? Constitution views give no clue as to how these questions might be answered; yet they require answers. If this isn't the remnant-person problem all over again, it's a close cousin of it.

Maybe Johnston could explain why your brain would constitute a person in the vat but not in your head (not that he or anyone else has actually done so). In that case animalists ought to be able to explain in the same way why your brain would be a person in the vat but not in your head. That would be a version of remnant cerebralism (§8). It would give animalists a solution to the remnant-person problem about as good as Johnston's (that is, about as good as Johnston's would be if he had an account of why detached but not undetached brains constitute people). I say “about as good” because the animalist proposal would imply that there are four people in the transplant story when there appear to be only two; but it would explain why this was so.

In fact constitutionalists face a far more difficult explanatory task than animalists

¹⁴ Johnston calls the nonorganism a “human being” and an animal, and calls the organism a “body”. This is confusing: to most ears, a human being, and certainly an animal, is by definition a kind of organism. It also gives his view a misleading appearance of familiarity. (Parfit is more honest: he puts his rejection of animalism by saying that we are not human beings.) I will describe Johnston's view in my own terms.

do. Animalists have to explain why your undetached brain is not now a person. Constitutionists have to do that too, since it's part of their own view. As we have seen, they must also account for the additional fact that your brain does not now constitute a person. (Animalists, if they are wise, will reject constitution root and branch, and thus need no special explanation for this fact.) Further, constitutionists need to explain why your brain is not a person when it's in the vat (they say that it merely constitutes one). And of course they need to explain why a normal human organism is not a person or thinking being (but merely constitutes one) and why a normal human person is not an organism (but is merely constituted by one). You and the organism (and you and your brain when you are in the vat) are physically indistinguishable, with the same surroundings, the same history, and the same behavior in both actual and counterfactual situations. Constitutionists need to explain how such beings can nevertheless differ radically in their mental and biological properties.¹⁵ Compared to these challenges, what to say about remnant people--about a wild science-fiction story based on unargued assumptions about the mental powers of detached organs--looks like a detail.

However troubling the remnant-person problem may be, then, it is not obviously any worse for animalism than for its main rival. One view that really would solve the problem is that we are brains. That is, each of us--each normal person--is literally a three-pound lump of soft, yellowish-pink tissue. I don't mean the view that we are constituted by brains--that would raise the same explanatory challenges yet again--but that each of us really is a brain. Call this the brain view. It implies that your brain is a person even now, and removing it from your head would neither make it into a person nor enable it to constitute one. The operation would do nothing more mysterious than change your surroundings. Some have taken the remnant-person problem to support something like the brain view.¹⁶

The brain view faces many objections (Olson 2007: 84-98). The most relevant for present purposes is that, like animalism, it conflicts with common beliefs about our persistence through time. My brain might be fixed in formaldehyde after my death. (This is a real case, and not science fiction.) It looks as if that organ would still exist in this state. If so, and I am my brain, then I too should still exist. It would not be merely a loose manner of speaking, but the literal truth, to say that the brain in the jar is Olson, the author of this chapter. If you don't like animalism's implication that you would stay behind with an empty head in a brain transplant, you won't like the implication that you could become a specimen in formaldehyde either. That may be why almost no one accepts the brain view.

I am not aware of any better solution to the remnant-person problem than those I

¹⁵Shoemaker offers such an explanation (1999, 2011; see also Olson 2007: 60-65). Johnston does not (2007: 55f.).

¹⁶Campbell and McMahan 2010, Parfit 2012. I say "something like" the brain view because they seem to believe that we are not actually brains, but things constituted by brains. This, like Johnston's view, creates more problems than it solves.

have discussed.¹⁷

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