

## Animalism and the Remnant-Person Problem

Eric T. Olson  
University of Sheffield

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### Abstract

Animalism clashes with the conviction that we should go with our transplanted brains. A good reply is that if animalism were true, we could explain easily enough both why the conviction is false and why it seems compelling. But another objection cannot be answered so easily. Animalism seems to imply that the detached brain would be a person who comes into being when the brain is removed and ceases to exist when the brain goes into a new head. And that seems absurd. Although the problem is in no way unique to animalism, it has no obvious solution.

### 1.

Animalism is the view that you and I are animals. That is, we are animals in the straightforward sense of having the property of being an animal, or in that each of us is identical to an animal--not merely in the derivative sense of having animal bodies, or of being "constituted by" animals. And by 'animal' I mean an organism of the animal kingdom.<sup>1</sup>

Sensible though it may appear, animalism is highly contentious. The most common objection is that it conflicts with widespread and deep beliefs about our identity over time. These beliefs are brought out in reactions to fictional cases. Suppose, for instance, that your brain is transplanted into my head. The being who ends up with that organ, everyone assumes, will remember your life and not mine. More generally, he will have your beliefs, preferences, plans, and other mental properties, for the most part at least. Who would he be--you, me, or someone else?

Animalism implies that he would be you. That's because the operation does not move a biological organism from one head to another. It simply moves an organ from one animal to another, just as a liver transplant does. One organism loses its brain and remains behind as an empty-headed vegetable; another has its brain removed and replaced with yours. (Or perhaps, as van Inwagen [1990: 172-181] proposes, the naked brain would itself be an organism, and the empty-headed thing left over would be a mere hunk of living tissue, like a severed arm, owing to

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<sup>1</sup>Many philosophers say that we "are" animals, but mean only that we are nonanimals constituted by animals. And some deny that human animals are organisms. For an example of both views, see Johnston 2007: 49, 56.

the brainstem's role in directing a human organism's life-sustaining functions. In that case, the operation would pare down an animal to the size of a brain and move it to another head, and the being who ended up with your brain and the rest of me would be you, even according to animalism. If this is right, the objectors must replace 'brain' with 'cerebrum'. No one thinks an organism could be pared down to a naked cerebrum. I will ignore this complication in the sequel.)

So if you and I are animals, I could swap my brain for yours. In that case I should suddenly acquire your knowledge, skills, and interests, and lose my own. I should lose all the memories of my past. In their place I should acquire memories of your past: of holidays I never took, people I never met, experiences I never had. My head would be filled with false beliefs: I should be convinced that I lived in your house, worked at your job, and was married to your spouse. I should think I was you. I should be systematically mistaken about who I am and how I fit into the world. As for you: if the operation didn't kill you outright, it would cause you to lose all your memories, knowledge, plans, abilities--everything that matters. Unless, that is, you too got a new brain. If you got my brain, your lost memories would be replaced by memories of my life. You would be convinced, mistakenly, that you lived in my house, worked at my job, and were married to my spouse.

That is what animalism implies about the transplant story. And it is easy to be unhappy with this description. In my experience, those presented with the thought experiment have an almost irresistible tendency to say that the one who got your brain would be you, not me. The operation would not give me your brain, but would give you my body. Transplanting your brain amounts to transplanting you. A brain transplant is not at all like a liver transplant. Call this conviction the transplant intuition. (What about me? Well, the intuition implies when the surgeons remove my brain to make way for yours, they remove me from my own head, just as they remove you from yours.)

The objection, then, is this: Even if our brains are never actually transplanted, each of us has the capacity to go with one's transplanted brain: to be pared down to a naked brain and moved to another head. But no animal has that capacity. Transplant an animal's brain and the animal stays behind. It follows (by Leibniz's Law) that we are not animals. To put the point another way: if your brain were transplanted, then according to the transplant intuition you would go one way, while the animal we call your body--the animal you would be if you were any animal at all--would go another. But it is impossible for a thing and itself to go their separate ways. If it is possible for you and your animal body to go your separate ways, it follows that you are one thing and the animal is another thing, numerically different from you. And there is no other animal or organism that you could be. It follows that you are not an animal, or any other a biological organism. You may still relate in some intimate way to an animal: you might have an animal as your body, or be constituted by an animal. But you are not yourself an animal.

2.

Is this a strong objection? Well, here is a way of defending animalism against it. Suppose for the sake of argument that we were animals (hardly a wild conjecture). That would not only entail that the transplant intuition was false, but it would explain in an unmysterious way why it was false. If we were animals, we should not go with our transplanted brains because no animal would go with its transplanted brain. An animal, even a human organism, simply loses an organ and gets an empty head when its brain is removed. (At any rate that is a premise of the transplant objection.) And if we were animals, that is what would happen to us.

Animalists can also explain why we should nonetheless find the transplant intuition attractive, even compelling, if it were false for this reason. Why might the transplant intuition seem true if we were animals? Why does it seem so obvious that the person who ended up with your brain would be you? How could generations of philosophers and their students have got it so badly wrong? Well, there would be strong grounds for accepting the transplant intuition even if it were false because we are animals. In fact, human animals would have the same reasons for supposing that they would go with their transplanted cerebrums as we have to believe that we should.

There are two main grounds supporting the transplant intuition. First, the psychological and behavioural evidence that supports judgments about personal identity in familiar cases--judgments that are compatible with animalism--also supports the transplant intuition. Why do I suppose that the man who will wake up in my bed tomorrow (in normal circumstances) is me, and not a new person who came into being during the night? One reason is that he will have my memories, beliefs, preferences, and plans, or at least memories, beliefs, and plans that are causally dependent in a special way on my current mental states. In other words, he will be psychologically continuous, then, with me as I am now. What's more, this psychological continuity will be (as Unger puts it) continuously physically realized in my brain, which will remain intact overnight. And no one in any real situation is ever psychologically continuous with someone without being that person: no one is ever psychologically continuous with someone else. In real life, someone's being psychologically continuous with you at some time in the past or future is powerful evidence--probably conclusive evidence--for his being you.

The person who ended up with your brain in the transplant story would likewise be psychologically continuous with you, and this continuity would be continuously physically realized. And there would be no psychological continuity between that person and me. In real life, this would be conclusive evidence for his being you. So it would hardly be surprising if this led us to believe strongly that the brain recipient would be you rather than me. And we should be no less inclined to think so if in fact he would not be you because (unbeknownst to us) you are an animal.

The second sort of evidence supporting the transplant intuition is practical. The person who ends up with your brain may have "what matters in identity" for you.

Before the operation you might have the same reason to care about the welfare of that person as you normally have to care about your own welfare. He might be morally responsible for the things you did before the operation. Everyone might be morally obliged to treat him just as if he were you; and he might be obliged to treat your children, spouse, and friends as if they were his own. And maybe the empty-headed being left behind would not have what matters in identity for you. Even if that being were subsequently given a new brain from some third party, you might have no more reason, before the operation, to care about his or her welfare than you have to care about the welfare of any other stranger. In all actual circumstances, a person bears these relations of practical importance only to herself: it's never the case that someone else has "what matters in identity" for you. So again, it would hardly be surprising if the fact that the person who got your transplanted brain would have what matters in identity for you inclined us to suppose that he would be you. And this inclination would be in no way diminished if the supposition were false because we are animals.<sup>2</sup>

These are all grounds for supposing that you and I and every other human person would go with his transplanted cerebrum. And they are grounds that we should have even if we were animals and it were false. In that case our mistake would be entirely understandable. Nor would there be the slightest mystery about why the transplant intuition was false. So it looks as if we have little right to any great confidence in the transplant intuition unless we already have a good reason to suppose that we are not animals.

### 3.

Even if this is a good defence of animalism, however, the brain-transplant story raises another objection that cannot be answered so easily. Think about your brain in mid-transplant, detached from your skull but kept alive. It is of course not alive in the way that an organism is alive. But it can be alive in the sense that its cells remain alive, like a liver awaiting transplant.

It seems possible for the brain, in this condition, to support thought and consciousness. At any rate this is almost universally assumed, and I am not going to challenge it here. "Brain-in-a-vat" thought experiments are a staple in the diet of philosophy students everywhere, and it is part of the story that a detached brain could produce thought. (It may be that mental life is possible only if the cerebrum is stimulated in some special way by the brainstem, so that a naked cerebrum merely kept alive in a vat would have little or no mental life. In that case, if we are

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<sup>2</sup>"Fission" is another imaginary case where what is actually conclusive evidence for someone's being you might be consistent with her not being you. If each half of your brain were transplanted into a different head, resulting in two beings psychologically continuous with you, it is easy to suppose that both would be you. Yet even many opponents of animalism concede that this cannot be, as there is only one of you, and one thing cannot be numerically identical to two things.

transplanting only the cerebrum, we must imagine it provided artificially with whatever stimulation it needs to support mental life.) But if the brain supports thought and consciousness, then there is a thinking, conscious being there--a being psychologically more or less like you. In other words, your brain, kept alive in a vat or whatever, would be a person. Or if it would not be a person itself, it would at least "realize" or "constitute" a person. Mark Johnston, to whom I owe this objection, calls it a remnant person.<sup>3</sup>

The possibility of remnant people is trouble for animalism. Animalism seems to imply that this remnant person would not be you. Otherwise it would be possible to pare down a human organism until it was nothing but a brain. But if an organism could be reduced to a detached brain (or cerebrum), then it could be transplanted from one head to another, and we have already ruled that out. (I will revisit the ruling in the next section.) The problem is not that we are convinced that the remnant person would have to be you, contrary to animalism. That would be the transplant intuition again, or at any rate an intuition epistemically indistinguishable from it, and animalism could be defended against it in the same way. Nor is the problem that the remnant person would not be an organism. That is perfectly compatible with animalism, which does not say that necessarily all people are organisms, but only that we are--we normal human people. (For all animalism says, there might be entirely inorganic beings who count as people in the sense of being rational, self-conscious, and so on: angels, for instance.)

The trouble comes when we ask where the remnant person could have come from, if he or she could not be you. Surely he did not exist before the operation. Otherwise there would have been two people within your skin--the organism, who became an empty-headed vegetable, and the remnant person, who became a naked brain; and that is absurd. It looks as if animalists must say that the operation brings the remnant person into being. But that looks absurd.

For one thing, it is evident that there are just two people in the transplant story, you and I, even if there is dispute about what happens to us. If the remnant person were someone new, there would be three. Or rather four: if removing your brain from your head creates one new remnant person, then removing my brain to make room for yours creates another. There are you, I, and the two remnant people created when our brains are removed. That's two too many.

More seriously, it is impossible to believe that removing someone's brain from her head could 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

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<sup>3</sup>We might say that something is a remnant person at a time  $t$  just if she is a wholly organic person at  $t$ , she is not herself an organism or a thing constituted by an organism at  $t$ , and this condition is a result of cutting away a large portion of a normal human person at some time before  $t$ .

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 implies that the transplant operation would bring a remnant person into being, it violates what we might call the creation principle: that you cannot bring a person into being merely by cutting away sustaining tissues.

Animalism would violate a second and equally attractive principle as well, namely that you cannot destroy a person merely by surrounding him with sustaining tissues: the destruction principle. Suppose we implant our remnant person into a new head--or, for that matter, into your own head again--hooking up the utilities in such a way as to make the resulting person more or less normal. According to animalism, this normally embodied person would be an organism. And no organism was ever a detached brain. The result of implanting a brain into an empty head is not that the brain comes to be an organism; rather, the organism simply acquires a new organ, just as it might acquire a new liver or kidney. Yet the remnant person does not cease to be a person when he or she is implanted. Nor does it come to be the case that there are two people within the same skin. It follows that the remnant person must cease to exist when he is put into a head. But providing a maimed person with the parts he was missing is a funny way of destroying him!

So the new objection to animalism is that it is incompatible with the creation and destruction principles. You cannot create a person just by cutting away sustaining tissues, or destroy one just by providing them. Because animalism implies that you can create and destroy a person in these ways, it must be false.

This is not just the original transplant objection put differently, and it demands a different response on the part of the animalist. Our being animals cannot explain why the creation and destruction principles are false. It may explain why none of us can come to be a remnant person, and thus why the remnant person who results from removing your brain from your head would not be you: the explanation would be that you are an animal, and no animal can become a remnant person. But our being animals cannot explain how the operation could have brought a person into being. The remnant person's not being you is one thing; his coming into existence when your brain is removed is another. Likewise, our being animals may explain why the remnant person is not the normally embodied person who would result from putting your brain into my head: the explanation is that no animal could once have been a remnant person. But it cannot explain how implanting the remnant person into a new head could destroy him. His ceasing to exist is different from his not being identical to any normally embodied person.

To explain how removing your brain from your head could bring someone into

existence, and how replacing that organ could destroy him, we need an account of the metaphysical nature of remnant people. We need an account that would tell us, among other things, why remnant people come into being and pass away in such a surprising way--why they have such funny persistence conditions. But animalism offers only an account of our metaphysical nature: that of normally embodied human people. So even if animalism entails that the creation and destruction principles must be false, it cannot explain why they are false. The strange behavior of remnant people would remain a mystery. Call this the remnant-person problem.

#### 4.

I can offer no account of why removing someone's brain from her head would bring a remnant person into being, or why that person would cease to exist if the brain were put back. If animalism really did imply that this would be so, it would be a serious objection. I think animalists should accept the creation and destruction principles, and deny that a brain transplant would create and then destroy a remnant person. How could that be? Who would the remnant person be, and how would he relate to the animal people, you and me?

One suggestion is that despite appearances, the remnant person is you, the donor organism. Removing your brain or cerebrum from your head would not remove an organ from a human animal, leaving that animal with an empty head. And putting your brain or cerebrum into my head would not supply this animal--my body--with a new organ. Rather, the operation would pare an organism down to a naked brain and later supply it with new peripheral parts to replace the ones cut away. Of course, the brain or cerebrum in mid-transplant is not an organism, at least not then. But perhaps an organism is not an organism essentially, and can exist for a while as a nonorganism, just as a student can take a leave of absence and exist for a while as a nonstudent. This is logically consistent with animalism. Animalism is the view that we are organisms, not the view that we are organisms essentially. So maybe a human animal really would go with its transplanted brain. In that case, no remnant person would be created or destroyed in the operation. This would answer not only the remnant-person objection, but the transplant objection as well. Both objections would be based on a false assumption about what it takes for a human animal to persist. Because this proposal implies that we are animals accidentally and not essentially, we might call it accidental animalism.

Accidental animalism raises a number of worries. Perhaps the most obvious is that the empty-headed thing left behind after your brain is removed may still be alive--especially if the operation transplants only the cerebrum. That is, it might be a living organism. And if it were, it would seem to have the same life, as Locke would say, as the original organism had: the original organism's life-sustaining functions would have continued uninterrupted throughout the operation in the large thing left behind, just as they would had the surgeons removed the liver rather than the cerebrum. And if an organism's biological life carries on, how could it not continue

to be the life of that same organism? Even if an organism could continue existing after its life comes to an end, how could an organism be outlived by its own life?<sup>4</sup> Yet accidental animalism implies that this living, empty-headed organism would not be the original animal. That looks obviously false. Surely it is possible for a human animal to have an organ not essential to the maintenance of its life-sustaining functions removed, and to continue existing without that organ. If a human animal could not possibly exist even for a moment without its cerebrum, then we ought seriously to wonder whether any animal could exist even for a moment without its liver or kidney or appendix. It would be a real epistemic possibility that an appendectomy reduces an animal to the size of an appendix, while the living organism left behind is not the survivor of the operation, but something new.

For that matter, accidental animalism creates a new version of the problem it was meant to avoid: a “remnant-animal problem”. It implies that removing your brain would create a new animal--the one with an empty skull. And replacing your brain with a new one, or even rehousing it in its original head, would cause this remnant animal to cease to exist, as the resulting “whole” animal would be the former brain rather than the former brainless animal. But surely you cannot bring an organism into being simply by removing tissue from something, unless (as Johnston would say) that tissue was functioning to suppress life or the capacity for life. Perhaps there could be tissues that were capable of developing into or coming to make up a living organism but for the presence of a tumour or other foreign body. In that case removing the tumour might bring an organism into being. But removing the cerebrum of a normal, healthy human being cannot do this. Nor can you destroy an animal living without a cerebrum or other nonvital organ simply by providing it with such an organ. These principles, surely, have the same force as the original creation and destruction principles. Accidental animalism avoids the objection that remnant people would have absurd persistence conditions by proposing that organisms have them. Nothing is gained.

## 5.

Here is a better proposal: The remnant person who would result from removing your brain from your head would be simply your brain--that is, the thing that is now your brain. The remnant person is never an organism, and the operation doesn't make him any bigger or smaller. Removing your brain from your head does not bring a person or any other material thing into being, and putting it into a new head does not destroy anyone or anything.

Plausible thought this may be, it raises an obvious pointed question. We are supposing that the remnant person can think and be conscious while he is detached from the rest of you. If the remnant person is your brain, this means that

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<sup>4</sup>For a defence of Locke's view that the continuation of an organism's life is both necessary and sufficient for the organism to persist, see van Inwagen 1990: 142-158.

your brain could think and be conscious while detached. The pointed question is this: does your brain think now, in its normal surroundings? Is it now conscious? I don't mean whether it "thinks" in some attenuated or derivative sense--in the sense of being the organ responsible for your thinking, say. The question is whether it thinks in the strictest and most straightforward sense. There is no very attractive answer to this question.

Suppose your brain does now think in the strictest sense. But we are supposing that you are not your brain. You are not, as things are, a three-pound, yellowish-pink organ located entirely within your skull. Rather, you are the animal your brain is a part of. And you also think in the strictest sense. Surely it couldn't be the case that you think only in a derivative sense: that you think only insofar as you have a part that thinks strictly speaking. As Chisholm said, if there are now two things thinking your thoughts, one doing it on its own and the other such that its thinking is done for it by something else, you are the one that thinks on its own (1976: 104).

Or maybe Chisholm was wrong about this, and there is no problem in saying that we think only in the derivative sense of having a part that thinks strictly speaking. In that case, we really can solve the remnant-person problem by saying that the remnant person would be your brain. Your brain thinks now, and is the only real thinker there. If it were removed from your head and kept alive in a vat, it would continue to think--though it would then think only for itself, and not for you. Presumably your brain would count as a person while it was detached, but not now while it remains a part of you, even though there would be no change in its mental capacities. Many philosophers will have no objection to this. Orthodox four-dimensionalism--the view that all persisting things including ourselves are composed of temporal parts--has a similar consequence: it implies that you think now only insofar as a part of you--your current stage--thinks strictly speaking. And although that stage is not in fact a person, it would be were it not surrounded by other stages psychologically continuous with it, even though there would be no difference in its mental capacities. Yet almost no one takes this to be an objection to four-dimensionalism.<sup>5</sup>

But let us suppose that Chisholm was right: if anything thinks your thoughts in the strictest sense, you do. If your brain now thinks, then so do you. It would follow that every normal human person is accompanied by another being psychologically indistinguishable from her. This article would have two authors, I and my brain, and there would be at least two conscious beings now sitting there reading it. On the Lockean assumption that a person is by definition a being with certain mental properties--rationality and self-consciousness, say--your brain would be a person. You would be one of two people now thinking your thoughts. The transplant operation would separate them, turning one into a remnant person and the other into a brainless vegetable. You ought to wonder which person you are. Any grounds you might have for supposing that you are the animal person rather than

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<sup>5</sup>Olson 2007: 122-125 is an exception.

the brain person would seem to be grounds for the brain to suppose that it is the animal person rather than the brain person. How could you know that you're not making this mistake? Likewise, you ought to wonder whether you are the one who would go with your brain if it were transplanted, or the one who would stay behind with an empty head.

Well, suppose your brain does not now think in the strictest sense. But it would think if it were detached and suitably cosseted. This seems to imply that your brain is now prevented from thinking by its fleshy surroundings. Normally it is a mere brute organ, no more sentient or intelligent than a kidney; but remove it from its natural habitat in the right way and it will blossom instantly into a mature philosopher. And putting it back where it belongs would deprive it of these new-found intellectual capacities and restore it to its former state of total oblivion (something that is normally a serious crime). So the sustaining tissues surrounding the brain really do "suppress mental life or the capacity for mental life". They may not suppress mental life altogether: they don't suppress it in the organism. But they suppress it in the brain, by preventing the brain from having its own mental life. Yet surely, we want to say, you can't give something the capacity for thought and consciousness merely by cutting away sustaining tissues; nor can you deprive something of that capacity just by surrounding it with such tissues. That looks just as compelling as the original creation and destruction principles.

So if your brain thinks now, there are too many thinkers; if it doesn't, things can gain or lose mental capacities in an utterly baffling way. That's the trouble that comes of saying that the remnant person would be your brain. We might call this trouble the remnant-brain problem.

## 6.

However grave the remnant-brain problem may be, it is no reason to doubt whether we are animals. It is not a problem for animalism in particular, but applies equally to almost any view about what we are. I say almost any view because you could avoid the problem by saying that we are brains: that each of us is literally a three-pound lump of tissue housed within the skull. In that case your brain thinks even now, and removing it from your head would do nothing to enhance its mental capacities. The operation would merely change your surroundings. What about the animal--your body? Doesn't it think, giving us too many thinkers? Well, if you are your brain, that is presumably because your brain is the only thinking being there. Anything bigger than a brain has mental properties only in the derivative sense of having a brain that has them strictly speaking. This would solve the remnant-brain problem. But no philosopher that I know of thinks that we really are brains.<sup>6</sup>

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<sup>6</sup>Though Hudson (2001: 143) says that each of us is a temporal part of a brain. I discuss the view that we are brains in Olson 2007: 76-98. I suppose one might also avoid the remnant-brain problem by saying that we are Humean bundles of

If you are not your brain, then our pointed question returns: does your brain now think--really think, in the strictest possible sense? If it does, then there are now two beings thinking your thoughts, you and your brain. On the assumption that a person is a being with such mental properties as rationality and self-consciousness, you are one of two people now thinking your thoughts. You ought to wonder which one you are, and how you could ever know. Or maybe your brain doesn't think. But it would if it were removed from your head and suitably cosseted. This means that your brain is now prevented from thinking by its fleshy surroundings. And putting it back where it belongs would presumably deprive it of its power to think and restore it to its former state of total oblivion. The remnant-brain problem does not arise only if we are animals. It arises if we are anything bigger than brains.

Someone might propose that your brain could never think, even when removed from your head. At most it might constitute a thinker: its matter would make up a thinking being other than your brain itself. Your body--an organism--constitutes you now, but if your brain were removed from your head, that organ would then constitute you, or at any rate it would do so for as long as it continued to realize your psychology. (This is Johnston's view, and presumably that of most other "constitutionalists".)

But this only relocates the problem. Constitutionalists do not think that your brain now constitutes you, or indeed any other thinking being. You do not weigh three pounds. You--not merely your body, but you yourself--extend all the way out to your skin. It is your animal body that now constitutes you, not your brain. So although removing your brain from your head would not give it consciousness or the power to think, it would give it the power to constitute a conscious, thinking being. Your brain is now prevented from constituting a thinker by its fleshy surroundings, and putting it back where it belongs after its removal would prevent it from doing so once more. Those sustaining tissues "suppress mental life or the capacity for mental life" insofar as they prevent the brain from constituting a psychological being. And that seems absurd.

This is just the remnant-brain problem in a different form. As far as I can see, any explanation of why a brain could constitute a thinking being when isolated but not in its natural habitat would serve equally well as an explanation of why a brain could think when isolated but not when embodied. It may be, for instance, that a brain cannot in its normal surroundings constitute a thinker because it is a then part of a larger being that constitutes a thinker, namely the animal. In that case, animalists can say that, although the brain could think when isolated, it cannot think in its normal surroundings because it is then a part of a larger being that thinks.

## 7.

So the remnant-brain problem is not a worry for animalism in particular, and impressionos, or immaterial substances.

simply denying that we are animals does nothing to solve it. If constitutionalists could explain why your brain would constitute a thinker when detached from the rest of you but not in its normal surroundings, then animalists could explain in the same way why your brain would think when detached but not otherwise. If animalists cannot explain why removing your brain would enable it to think, then constitutionalists cannot explain why removing your brain would enable it to constitute a person. If the remnant-brain problem is a reason to deny that we are animals, it is equally a reason to deny that we are material things constituted by animals.

For all that, I have done nothing whatever to solve the remnant-brain problem, or the more general remnant-person problem. Can it be solved--other than by saying that we are brains, or some other desperate ploy?

I haven't much hope for a "psychological" solution--that is, an account of why human brains should have the power to think (or to constitute a thinker) when detached but not otherwise. Another possibility is to deny that there are such things as undetached brains. There are of course particles "arranged cerebrally" within your skull; but they don't compose anything. Nor would they compose anything when outside your head. There are no undetached brains, and no detached ones either. There are no remnant people. There would be no remnant people even if brain transplants really occurred. So there is nothing in the transplant story whose surprising inability to think needs explaining, and the question of how the transplant operation could create and then destroy a person does not arise. We might call this brain eliminativism. If you think it sounds crazy, I don't blame you. But it may be no worse than the alternatives, including rejecting animalism. In any case, I will devote the rest of this paper to exploring it.

The obvious question it raises is why particles arranged cerebrally never compose anything. Why should there be human animals but no human brains? The only way to answer this question is to work out when any particles compose something. How, in general, do smaller things have to be arranged and situated for them to compose or add up to something bigger? There are two "extreme" answers to this question. One is compositional universalism: any things, no matter what their nature or arrangement, compose something. The other is compositional nihilism: no things ever compose anything. There are no composite objects, but only mereological simples. Nihilism is obviously incompatible with animalism, since no organism is a simple. And for reasons I have given elsewhere (2007: 229-232), animalism is not easily combined with universalism. Animalists need to say that some things compose something and others don't--which is what most of us probably thought anyway. But which ones, and why? Very few answers to this question have been proposed. The best answer I know of is van Inwagen's (1990: 81-97): that things compose something if and only if their activities constitute a biological life. This implies that the only composite objects are living organisms. I cannot defend this view here. But it would explain why there are no remnant

people: because a remnant person is by definition not an organism.

8.

Whatever its merits, brain eliminativism raises deep issues. Even if the particles arranged cerebrally in the vat would not compose anything, they might still manage to produce thought. At any rate, what went on inside the remnant person (to speak loosely as if there were such a thing) would be indistinguishable from what goes on within a normal human brain. So I have been assuming, anyway. Since you are a philosopher, the remnant person resulting from removing your brain would also be a philosopher. Or rather, those particles arranged cerebrally would collectively produce philosophical thought. This would be thought without a thinker. That possibility might be epistemically troubling.

Suppose the particles in the vat were collectively to produce the following line of argument:

I could be wrong in thinking that I have hands, or that there are other people, or that anything existed five minutes ago. But even so, I can be sure that I am now thinking. Nothing could mistakenly think that it was thinking. And if I am thinking, then surely I must exist. I could never be mistaken in thinking that I exist. So my own existence, at least, is certain.

According to brain eliminativism, the conclusion of this reasoning would be false. Even if it is logically valid, and anyone who thinks that she exists (or who thinks anything at all) really does exist then, it would not be true in this case that anyone was thinking. The word 'I' would not refer to anything. Or at least it would not refer to anything that was thinking. At most it might refer in the plural to the particles jointly producing the thought. But no particle thinks. Of course, in this case no one would be mistaken in giving the argument, since no one would be giving it. But the argument would be unsound, because the premise 'I am thinking' would be false.

If this is possible, then I ought to wonder whether I exist. I feel pretty certain that I do. Why? Well, if I didn't exist, how could I be sitting here writing this? How could I even raise the question of whether I exist? But the particles in the vat could produce the very same reasoning, yet the conclusion would be false. What reason have I got, then, to suppose that my reasoning is not unsound for the same reason--because my thoughts are produced by particles that don't compose anything? However obvious it may appear to me that I am now thinking, particles arranged cerebrally in a vat could (collectively) find the thought 'I am thinking' equally obvious, though it would be false. So for all I know it's false in my case too.

The worry does not require us to take seriously the possibility that I might be a remnant person--that evil surgeons might have snatched Olson from his bed last night and put his particles arranged cerebrally in a vat, and that those particles are the ones producing these thoughts. That scenario is farfetched, to say the least.

Maybe we can legitimately ignore it. Even so, brain eliminativism seems to imply that it is possible, in the brain-transplant case, for particles collectively to produce thought just like mine without thereby composing any thinking being. That raises the worry that it might be possible in other cases too, even in ordinary ones. It deprives brain eliminativists of what seems the best argument for supposing that there are any thinking beings, namely that there is thought and that thought requires a thinker. Presumably it would undermine any other argument for the existence of thinking beings in the same way. If this is the way to solve the remnant-person problem, it comes at the cost of undermining our belief in our own existence: hardly a welcome result.

## 9.

Or maybe there could not be thought without a thinker, and particles arranged cerebrally in a vat would be unable to produce thought. (This is van Inwagen's view [1990: 118f].) Even if they could produce something intrinsically indistinguishable from thought, it might not be genuine mental activity: no beliefs, desires, reasoning, or conscious states. Maybe there is nothing that it would be like to be a remnant person, and nothing it would be like to be in the states that particles arranged cerebrally in a vat could produce. That might enable me to know that I exist, and that my thoughts are not produced collectively by particles that compose nothing. For I can know that thinking is going on. There seems to be thinking going on, and this seeming is itself a sort of thought. If my particles did not compose anything, as the particles arranged cerebrally in the vat would not, then they could not collectively produce any seeming, and so it would not seem to me that I was thinking. That it seems to me that I am thinking (or that there seems to be thinking going on) would entail that it seems that way to something, and hence that something thinks: me. That might enable me to know that I exist.

This would mean that remnant people, or more precisely particles arranged cerebrally that are not parts of an organism, would be able to produce only pseudo-thought and pseudo-consciousness, though these states might be intrinsically identical to real thought and consciousness, and would have similar causes and effects to those of real thought and consciousness. Remnant people would be able to have conversations and write philosophical essays--or at least they could interact in ways outwardly indistinguishable from conversations, and collectively produce philosophical essays. There could be many remnant people hooked up by wireless links to robotic "bodies" whose movements were indistinguishable from those of human beings. There could be a vast society (as it were) of such remotely controlled robots, behaving and interacting in a way indistinguishable from real people, or at least as much like it as their inorganic anatomy allowed: working, chatting, quarrelling, publishing scholarly books, devising arguments for their own existence.... It would look for all the world like a community of thinking, conscious beings, yet there would be no thought or consciousness at all. What enables me to

know that I exist may make it hard to know whether anyone else does.

The possibility that unthinking beings might produce every outward appearance of thinking is nothing new. It seems also to follow from the claim that artificial intelligence is impossible--that no inorganic digital computer, no matter how powerful or cleverly programmed and no matter how it interacted with its environment, could have real consciousness or intentionality. For all anyone knows, it is physically possible to build self-contained inorganic robots--not controlled by remnant people in vats--whose outward behavior and interactions would be indistinguishable from those of human beings. There could be a vast society of such beings. If they could not really be intelligent, then here too no amount of behavioural evidence--and no amount of "intelligent" behaviour or dispositions so to behave--would guarantee the existence of thought or consciousness.

We might even doubt whether there is any importance difference between real thought and consciousness, which may require a subject, and pseudo-thought and pseudo-consciousness, which don't. Who cares whether the particles arranged cerebrally in the vat, or the robots that behave just like ourselves, could think or only pseudo-think? For that matter, how could I ever know whether I am now thinking or only pseudo-thinking? I proposed that if it seems to me that I am thinking (or that thinking is going on here), then I really am thinking, because seeming is itself a kind of thinking. But can I distinguish pseudo-seeming from genuine seeming? That would again cast doubt on my knowledge of my own existence.

Perhaps a good question to ask is whether pseudo-thought and pseudo-consciousness would have any normative status. I have a reason to promote the satisfaction of my desires and to avoid pain, and I have a moral duty to do the same for others. Have I got a reason or a duty to promote the satisfaction of pseudo-desires and to minimize pseudo-pain?

I wish I knew the answers to these hard questions, but I don't. Brain eliminativism may well raise more problems than it would solve.

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