

The metaphysical implications of conjoined twinning

Eric Olson, University of Sheffield

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Abstract

Conjoined twinning is said to show that the number of human people--the number of us--can differ from the number of human organisms, and hence that we are not organisms. The paper shows that these arguments either assume the point at issue, rely on dubious and undefended assumptions, or add nothing to more familiar arguments for the same conclusion.

1. Conjoined Twinning

Conjoined twinning is said to have dramatic metaphysical implications. It is supposed to show that the number of human people--the number of us--can differ from the number of human organisms. The number of people would have to be determined not by the number of organisms, but by the number of brains. Jeff McMahan and others infer from this that we are brains, or parts of them: each of us is literally a few inches across and lodged within the skull.¹ In any event, we could not be organisms.

I have discussed the view that we are something like brains elsewhere (Olson 2007: 76-98, 2014). My interest here is whether conjoined twinning shows that we are not organisms, contrary to the view known as animalism.

2. Two Cases

There are two different sorts of twinning arguments, each with the same startling conclusion. They correspond to two sorts of twinning cases. The most familiar are those where two heads, each with its own brain, emerge from a single torso. The star example is the Hensel twins, born in 1990 and recently graduated from university. Their torso contains two hearts, two stomachs, two spinal cords merging at the tailbone, and four lungs (two conjoined), but only one liver, one intestine, and one set of reproductive organs. Each brain controls the limbs on its own side and not those on the other. Call these double-brain twinning cases (the medical term is "dicephalus").

The claim is that in these cases there are two people but only one organism

¹Campbell and McMahan 2010: 289. Bayne (2010: 289-293) concludes instead that we are "virtual" or "intentional" objects. This sounds like a way of saying that there are really no people at all, but Bayne thinks we can still talk about how many there are. I don't understand this view well enough to say anything sensible about it. Geddes 2013 is a good critical discussion of Bayne's arguments.

(McMahan 2002: 35-39, Campbell and McMahan 2010: 286, Bayne 2010: 271-280, Gunnarsson 2010: 126-138). It follows that at least one of the people must be something other than an organism.² Presumably neither is, since each relates to the one organism in the same way--though this is not essential to the argument.

What has this got to do with those people who are not conjoined twins? Couldn't we be organisms, even if "twin people" are not? But in that case the Hensel twins would have a different metaphysical nature from ours. Human people would come in two metaphysical species, those who are biological organisms and those who aren't. Why, then, would there be no person of the twins' kind associated with each normal human organism? Suppose, for instance, that twin people were brains. Each normal human organism has a brain little different from those of the Hensel twins. If each "twin" brain were a person--a thinking, conscious being--we should expect my brain to be a person as well. And in that case it would be me. If I became convinced that the Hensel twins were not organisms, I would infer from this, as McMahan and others do, that no human person was an organism and that we were all beings of whatever metaphysical kind the twins are.

Double-brain twinning cases appear to have one organism but two people. In the second sort of case there appear to be two organisms but one person. Two torsos and two sets of limbs attach to a single head, with one cerebrum and two cerebella. Two organisms share one brain. Call these shared-brain twinning cases ("cephalopagus" in the medical literature). Although there has been no such case where each organism has had a complete set of organs below the brain, or where they have survived for more than a few minutes after birth, there probably could be. If there really were two organisms but only one person, at least one of these organisms could not be a person (Campbell and McMahan 2010: 297-301).

Now the existence of human organisms that don't count as people is perfectly compatible with our being organisms. (Animalists typically accept that anencephalic infants are not people.) Even if every person is an organism, it needn't follow that every organism, or even every human organism, is a person. But both organisms in this case relate in the same way to the shared brain, the mental states realized within it³, and the resulting behavior. Nothing could make one of them a conscious, intelligent being--a person--but not the other. Yet they can't both be, since there is only one person there. So neither is. Since there is a human person there, that person is not an organism. From here the argument

²Or perhaps the Hensel twins stand to the organism as the persons of the Trinity stand to God in Christian theology: they are "two persons in one substance". I won't explore this interesting thought.

³"Realization" is whatever relation one's brain stands in to one's mental states. We can't say, without assuming the point at issue, that to realize a thought is to have that thought, as that would imply that human brains think, and presumably count as people. This would imply all by itself that there are two people in the double-brain case.

proceeds as before: she would have the same metaphysical nature as the rest of us, and so her not being an organism would imply that none of us are.

3. Implications

Before examining these arguments I will say something about their implications. Suppose the numbers of people and organisms in twinning cases really do rule out our being organisms. The human organism you see when you look in a mirror is not you. You are one thing; the organism is another.

If that organism were conscious and intelligent, it would follow that you are one of two conscious, intelligent beings now thinking your thoughts. The organism would think them, and you, a nonorganism, would think them too. The organism would even count as a person by the usual definitions: it would be, as Locke said, “a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places” (Locke 1975: 335). So would every normal human organism. For each of us there would be two people: one who was an organism and one who wasn’t. The most popular accounts of personal identity over time, requiring psychological continuity, could not be true of the organism people. There would have to be two such accounts, one for the human people who are organisms and one for those who are not organisms. And it would be hard to see how anyone could have any reason to suppose that she herself was the nonorganism person within her skin rather than the organism person, leaving us unable to say what we are or what it takes for us to persist through time.

Few of those who say that we are nonorganisms would accept that the organisms we see in the mirror are psychologically just like we are.⁴ The usual view is that human organisms lack the special mental properties that distinguish people from nonpeople: they are not thinking, intelligent beings that have reason and reflection. So there are not two people wherever we thought there was just one. A human organism may be conscious and intelligent in the loose and derivative sense of standing in an intimate relation to a being who is conscious and intelligent in the strictest sense. (Perhaps the relation is being the body of--human organisms are intelligent in the sense of being the bodies of intelligent people numerically different from them--though this relation is notoriously difficult to characterize.) Likewise, each of us is a living organism in the derivative sense of standing in the inverse of that relation to something that is an organism nonderivatively. That’s what makes it true to say in ordinary, nonmetaphysical contexts that we are human beings and that human beings are more intelligent than giraffes. (Cartesians have been saying this sort of thing for centuries.) But strictly speaking, we people are conscious and intelligent but not living organisms,

⁴Advocates of temporal-parts ontologies are an important exception. Noonan (1998) endorses something like the picture, and offers a solution to the epistemic problem; for discussion see Olson 2002.

and human organisms are not conscious or intelligent.

But if normal human organisms are not conscious or intelligent, that can only be because they have no mental properties at all. And if human organisms cannot have mental properties, no organism can. Nothing could be at once conscious or intelligent and a biological organism. Mind and life--life in the biological sense--would be metaphysically incompatible.

Why should this be so? It might be because no material object of any sort could think. We thinkers would have to be Cartesian souls, bundles of mental states, or immaterial things of some other sort. Or perhaps, as McMahan suggests, organisms can't think but parts of their brains can. It is impossible for an organism to think not because it is a material thing, but because it has parts not directly involved in thinking--hands, lungs, and digestive organs, for instance. (Every organism must have such parts.) What we call an intelligent organism is merely the body or housing for the "conscious, thinking, and controlling part" within it (Parfit 2012: 14). This part can only think. When I walk--or do what I call walking--all I really do is perform a mental act. This causes the organism to carry out the physical action of walking. (Or more likely it's not the organism but the "walking part" of it: if only a thing whose parts are all directly involved in thinking can think, presumably only a thing whose parts are all directly involved in walking can walk.)

It would be important news if any of this were true. This is not the place to evaluate these consequences. My point is only that they follow almost inevitably from the conclusion of the twinning arguments. It is against this background that those arguments need to be assessed.

4. Double-Brain Cases

Turn now to the argument from double-brain cases. We might summarize it like this:

1. In double-brain cases there are two human people but only one organism.

Thus,

2. Some human people are not organisms.

3. If some human people are not organisms, none are.

Thus,

4. No human people are organisms.

For the reasons given earlier, I accept that 2 follows from 1. I will not dispute 3, and 2 and 3 entail 4. The point at issue, then, is 1.

Campbell and McMahan assert without argument that the Hensel twins share a single organism. It seems more likely that they are two fused and overlapping organisms (as Liao 2006 argues; see also van Inwagen 1990: 188-194). There are two brainstems that direct breathing, circulation, digestion, reflexes, and other life-sustaining functions. These organs control different regions, even if those regions

overlap. Their activities are largely independent of one another. If the left brainstem were destroyed, the organs under its exclusive control--the left heart and stomach, for example--would cease to function. The limbs on the left side would immediately lose their muscle tone and become paralyzed. The left spinal cord would begin to atrophy. This would look much like the death of an organism (even if the right heart could continue to supply all the affected tissues with oxygenated blood). But if one organism could die while the other survives, there would have to be two organisms. This would also be the case if it were possible to take two organisms and surgically fuse them, without killing either, to produce a case like that of the Hensel twins.

But never mind. I don't doubt that a single human organism could have two independently functioning brains, even if this would be far removed from any real case. So the argument stands or falls with the claim that there would be two people in such a case. Why think so?

The reason will have to turn on the fact that there would be two independent systems of thoughts, experiences, mental capacities, and so on: two mental systems, we might say. The elements of each system would relate to each other as the thoughts, experiences, and mental capacities of a normal person do. My mental states are unified in that they are disposed to interact with one another, and not with any others, in a characteristically direct way. If I want to leave the building, and I believe that I can do so only by using this door, and I have no competing desires, this will normally combine to cause me to use the door. Of course, matters may not be so simple. I could have repressed desires that surface only in indirect ways. My mental unity is less than perfect. Still, my mental states have a great deal more unity among themselves than they have with anyone else's. My desires will never interact with your beliefs in this direct way to cause action. To a large extent at least, my mental states form a unified system.

But in the double-brain case there are two such systems, each unified in itself but as causally isolated from the other as mine is from yours. A desire to leave the building realized in the left-hand brain will not combine with a belief about how to do so realized in the right-hand brain to cause action in any direct way. They will interact much as your mental states interact with mine.

5. The Psychological Individuation Principle

The assumption, then, is that there are two people in the double-brain case because there are two mental systems (Shoemaker 1996: 191, McMahan 2002: 38f., Campbell and McMahan 2010: 292, Bayne 2010: 271-280). The number of people must be the number of mental systems, or at any rate mental systems of the sort that distinguish people from other conscious, thinking beings--personal mental systems, we might call them. People and personal mental systems necessarily match up one to one.

This means that the number of people at a given time is determined by facts

about psychological unity and disunity. I have called this the psychological individuation principle (Olson 2007: 46). This principle is incompatible with animalism: facts about psychological unity and disunity do not determine the number of biological organisms of any sort. If what determines the number of human people is independent of what determines the number of organisms, then human people cannot be organisms. So if we could establish the psychological individuation principle, it would follow straightaway that we are not organisms and we could dispense with the twinning cases. (They would merely illustrate its consequences). And the principle does have its attractions. But if you think it sounds obvious, remember that it rules out the possibility that any living organism could have mental properties.

Why accept the principle? It would follow, of course, from the claim that people are mental systems--not material things, but beings made up entirely of mental states and activities. This was Hume's view: a person is a bundle of impressions. But it is incompatible with McMahan's view that we are parts of brains. For that matter, it implies all by itself that we are not organisms. With this assumption too there would be no need to consider twinning cases.

Shoemaker thinks the principle follows from the functionalist theory of mind (1996; see also Olson 2003: 334f.). Mental states, by their very nature, must be disposed to interact with others in something like the way sketched in the previous section: part of what it is for something to be a desire, for instance, is for it to be disposed to interact with beliefs in a certain way to cause action. Mental states have to belong to mental systems, and cannot exist in isolation. How does this imply that where there are two mental systems there have to be two people (or more generally two mental subjects)? Why couldn't someone have two mental systems? Shoemaker says that a mental state of any being has to be unified in this way with every other mental state of that being. So no being could ever be the subject of more than one mental system. But it's not clear why this must be so. It is of course no accident that each organism normally has at most one mental system: two would conflict in ways that would tend to reduce the organism's evolutionary fitness. But why should it be metaphysically impossible?

Someone might ask: If a person really could have two mental systems, why suppose that you and I are two people, and not one person with two mental systems? What does determine how many people there are at a given time, if not facts about psychological unity and disunity? Animalism gives a simple answer: you and I are two people because we are two organisms (van Inwagen 1990: 194-212). The number of human people is the number of human organisms with the mental properties that constitute personhood.

This means that Abigail and Brittany Hensel--pretending for the sake of argument that they share a single organism--are the same person, just as the morning star and the evening star are the same planet. She is, to be sure, a highly unusual person, with a radically disunified psychology. She is the subject of two

mental systems as independent as yours is from mine. She is likely to have wildly inconsistent beliefs. She might have the belief that it's going to rain realized in one brain and the belief that it's going to be dry realized in the other. This will be no rational failing, however, since these inconsistencies will not be apparent to introspection. She will almost certainly believe that she is one of two people. In fact she will believe this twice over. She will have, realized in one brain, the belief, "I am Abigail and not Brittany," and the mirror image of this belief, with the names reversed, realized in her other brain. Because her first-person thoughts and the two names refer to the same being, she is right to think that she is Abigail and to think that she is Brittany, but mistaken in thinking that she is not Brittany and that she is not Abigail. A strange description, I concede; but then it's a strange case.

Why not suppose that the name 'Abigail' refers to the brain that realizes the thought, "I am Abigail and not Brittany," and that 'Brittany' refers to the brain realizing the opposite thought, so that both come out true? Why insist that there is just one person here, who is bizarrely confused about who and what she is?

The animalist will reply that first-person thoughts refer to the being who thinks them, and that the only thinking being here is the organism. If there were two thinkers, each thinking just those thoughts realized in one brain, they would not be organisms, and there would have to be a nonanimal thinker associated with each normal human organism as well. That leads almost inevitably to the conclusion that normal human organisms themselves cannot think, and more generally that it is metaphysically impossible for any biological organism to have mental properties. The animalist reasons like this: since living organisms can think (and there is not both an organism and a nonorganism thinking my thoughts), every human thinker is an organism. And as there is (we are imagining) only one organism in the case of the Hensel twins, that organism is the only thinker there. It must therefore be the referent of the names 'Abigail' and 'Brittany' and of the twins' first-person thoughts (though of course they're not strictly twins).

This reasoning is not meant to show that animalism must be true. Its purpose is simply to defend animalism against the charge that it can give no acceptable description of the twinning cases.

6. The Argument from Separate Mental Lives

Abigail and Brittany Hensel...are clearly separate and distinct persons. Each has her own private mental life and her own character; each feels sensations on only one side of her body, and each has exclusive control over limbs on her side. (Campbell and McMahan 2010: 286; see also Gunnarsson 2010: 129)

There are three claims here. First, each twin has her own private mental life, where a "mental life" is presumably what I have been calling a mental system. Second, each twin feels sensations on only one side of her body. And third, each has

exclusive control over the limbs on her side. These are not three premises of a single argument, but three separate arguments for the conclusion that there are two people.

Talk of private mental lives is a red herring. A private mental life is one that isn't shared, and no mental life is shared even if there is only one person there. The first claim should be that Abigail has just one mental life, realized exclusively in one brain, and Brittany likewise has just one mental life realized exclusively in the other. Since they have different mental lives, it follows that they are two people. But to assert as a premise that each person has her own mental life different from that of the other is to assume the point at issue, namely that there are two people. If people were animals and Abigail were Brittany, neither would have just one mental life. And the argument provides no reason to dispute this.

The second claim, that each twin feels sensations on only one side of her body, also presupposes that there are two people, each with different sensations. Otherwise no one would feel sensations on only one side of her body. Again, we have been given no reason to think otherwise.

The third claim, that each twin has exclusive control over the limbs on one side of her body, is in fact consistent with their being just one person: no limbs are under the joint control of two people. I suppose the intended claim was that each twin can control the limbs on just one side of the body. But that again assumes the point at issue.

7. The Outliving Argument

Another argument says that if one brain were destroyed and the other left intact, one person would die and one would survive (McMahan 2002: 36). Since nothing can both die and survive at once, they must therefore be two people.

This reasoning is based on two assumptions. First, destroying one of the brains would kill someone. Anyone whose mental life is destroyed thereby dies: the death of a person is the destruction of her mental life. Second, someone would survive if one of the brains remained intact. This is presumably because anyone whose mental life is preserved thereby survives. But these assumptions presuppose that every person has just one mental life, so that in the imagined case one person dies by having her only mental life destroyed and the other survives by having her only mental life preserved. And that, once again, is the point at issue, the claim the argument was supposed to give us a reason to accept. What if someone had two mental lives--that is, two separate but individually unified mental systems--and just one were destroyed? Then the principle that death is the destruction of one's sole mental life would have no application, leaving the argument without force.

8. The Separation Argument

A related thought is that the twins could be separated: one head could be

removed and attached to a new torso and set of limbs, leaving the other in place. If the operation went well, the result would be two people by anyone's lights: even animalists will agree, as there would then be two organisms. And both twins would survive: the operation really would separate them, rather than creating a new person. But the two resulting people cannot both be the original organism, since one thing cannot be identical to two things. So at least one of the twins must not be an organism:

5. There are two people after the operation.
6. The people who exist after the operation also exist before it.

So

7. There are two people before the operation.
8. There is only one organism before the operation.

Thus,

9. There is a person before the operation who is not an organism.

6 is the crucial premise. Why accept that the supposedly separated twins both existed before the operation? The most likely answer is that each is psychologically continuous in the relevant way with someone who existed beforehand. This is presumably because psychological continuity suffices for a person existing at one time to exist at another time. But that assumption--a psychological-continuity account of personal identity over time--entails all by itself that you and I are not organisms.

To see this, imagine that your cerebrum is put into my head, resulting in someone psychologically continuous with you. By the psychological-continuity account, that person would be you with a new body (as it were), and not me with a new cerebrum. But he would not be the organism from which your cerebrum was removed: that organism would simply lose an organ and either die or go into a vegetative state. It follows that you could leave "your" organism behind--that is, the organism you would be if you were any organism at all. But nothing can leave itself behind. Even if you never have your cerebrum transplanted, you still have a property that no organism has, namely being such that you would go with your cerebrum if it were transplanted. It follows that you are not an organism. This reasoning has nothing to do with conjoined twinning. If the twinning argument relied on a psychological-continuity account of personal identity, it would add nothing to the familiar anti-animalist arguments based on brain transplantation.

In fact the argument has little force even apart from this. Most psychological-continuity theorists concede that psychological continuity alone is insufficient for a person to persist, owing to the possibility of "branching" cases. If each of your cerebral hemispheres were transplanted into a different head, the result would be two people, each psychologically continuous with you, with this continuity realized in a continuously functioning organ of thought. But since two people cannot be one

person, at least one of the two resulting people (presumably both, since each would relate to you in the same way) must not have existed before the operation.⁵ What is usually taken to suffice for survival is not psychological continuity alone, but “non-branching” psychological continuity: roughly, a future person is you if she is then psychologically continuous with you as you are now and no one else existing at that time is as well. But this claim does not support 6: for all it tells us, the supposed separation of conjoined twins might itself be a branching case, where one person is psychologically continuous, before the operation, with two people existing afterwards. To rule that out, we need the premise that there are two people before the operation and not just one. But that is again the point at issue.

9. The Argument from Separate Interests

Someone might argue that the twins could have separate interests. Imagine that medical complications threaten the organism’s life, and the surgeons can save it only by amputating one of the heads. Either would do, but one head is less robust and the operation is more likely to succeed if that one goes. It may be in the interest of the organism as a whole, and of the person with the stronger head, to have the weaker head removed; but doesn’t this go against the interests of the person with the weaker head? But if the one with the stronger head and the one with the weaker head have different interests, they have to be different people.

David DeGrazia (2005: 59-60) proposes that in this case each “center of consciousness”—that is (I suppose) each mental system—has its own interests. He says this is consistent with there being just one person there, namely the organism, because a mental system is not a person or a conscious being. I doubt whether a mental system is the sort of thing that can have interests. In any event, people have interests, and we have to say something about the interests of the people in the twinning case.

If there is only one person there, it is presumably in her interest to have the weaker head amputated. She may believe that this goes against her interests, with this thought realized in the brain the surgeons want to amputate. It would be based on the belief that the operation will kill her. Both beliefs would be understandable. But according to animalism both are false, just as her belief that she has only one head and is one of a pair of conjoined twins is false. It is in the interest of the person with the weaker head to have that head amputated, because she is also the person with the stronger head. Although she may not realize it, she is going to survive, and no one is going to die.

This is not to deny that the amputation would be a great loss. The person would lose a head, and with it a unique personality, a unique set of memories,

⁵Psychological-continuity theorists who accept temporal parts can say that there were two people all along, sharing their temporal parts located before the operation (Lewis 1976). But the temporal-parts ontology is a substantive and highly contentious metaphysical claim.

preferences and goals, and all the other psychological features that the rest of us lose when we die. It would destroy an entire mental system. In normal cases (and probably in all real ones) this destroys the whole of someone's psychology, and is in practical terms as good as death. And this case too would be very like the death of a person. Grief and mourning would be appropriate reactions. But no one would lose everything. The person would lose one of her mental systems but retain the other.

How would she feel about the coming operation? She would expect to die, and at the same time expect to survive and lose her conjoined twin, though because each attitude would occur within a different mental system she would not perceive their inconsistency. Both expectations would be warranted.

I suppose it is impossible to imagine having both attitudes at once. More generally, we cannot imagine being a subject of two separate mental systems. Perhaps it could be argued that no one could be in an experiential condition that was in principle unimaginable. (I say an "experiential" condition because we cannot imagine complete unconsciousness, a condition we are frequently in.) But I don't know how the argument would go.

10. Moral Arguments

Suppose one of the twins is generous and good and the other is selfish and wicked. Or to put it less tendentiously, one of the brains realizes a good character that generally leads to kind actions, while the other realizes a selfish character that often leads to wicked actions. (Remember, to "realize" a character is not necessarily to have that character. Realization is simply the relation one's brain stands in to one's mental states.)

If there is just one person here, then he is at once good and evil. He has two utterly different and independent characters. The wicked character and the actions resulting from it would cause only revulsion and horror in the "good" brain, just as seeing me act badly would cause revulsion in yours. Doesn't this show that there are two agents, and thus two people, one responsible only for the good actions and the other responsible only for the wicked ones? Yet according to animalism there is just one, who is responsible for both. This appears to hold an innocent person responsible for actions he had nothing to do with.

But is there an innocent person who had nothing to do with the wicked actions? The question is precisely analogous to asking whether Dr Jekyll is innocent and has nothing to do with the actions of Mr Hyde. In both cases it's true that there is someone who sees the wicked actions as if they were someone else's and reacts with horror. He would think, with complete sincerity, "That's dreadful! I would never act like that." And someone would remember planning and carrying out the actions and presumably take them to be justified. The question is whether these could be the same person. If anyone could be at once convinced, on reasonable grounds, that he had nothing to do with certain actions, yet also fully aware that he did them,

it would be someone with two independent brains. Whether that is possible is the point at issue, and moral considerations provide no obvious reason to think not.

Isn't it unjust for someone to be punished for crimes that he had no memory of committing and did not result from his character? But according to animalism, the one person does remember committing the crimes. And they did result from his character--or one of his characters. His memory of the actions and the character that led to them are simply isolated from his conviction of innocence, owing to his extreme mental disunity. He would, of course, rightly feel aggrieved at being punished for them (though at the same time he would see it as a fair cop). And maybe it really would be unjust to punish him in the usual way--by a prison sentence, say. Perhaps we ought to punish him by causing suffering in the "wicked" brain without causing suffering in the "good" one. This would still cause a good person to suffer. But that person would also be wicked, and the suffering would not directly affect the mental system responsible for the good character. Devising such a punishment may take some doing, but the same practical difficulties would arise on the assumption that there there are two people there, one guilty and one innocent. None of this implies that there must be two people.

11. The Incredulous Stare

I can imagine finding all this rather exasperating. "Never mind the academic arguments," someone might say. "You can see that the Hensel twins are twins and not a single person with two heads. If you actually met and got to know them, you would have to treat them as two people, as different and individual as any other pair of identical twins. If they took your Metaphysics class, they would hand in separate work and you would mark them independently. If animalism implies that they would be one person, then animalism is incredible."

It is hard to believe that the Hensel twins, or rather the people in a similar case where there is only one organism, would not be twins. There really would appear to be two people there. But I can't see how to accept this without committing myself to the metaphysical impossibility of animal thought and consciousness, and I find that even worse. Forced to embrace one of two repugnant claims, I can only choose the less repugnant.

I concede that I would find myself treating such a person as if she were two, assigning separate exam marks, and so on. That's the appropriate thing to do: to engage the person in one way when interacting with her via one head, and engage her independently when interacting with her via the other. I would have to put aside my metaphysical convictions and act as if there were two people there.

But we already knew that animalism has implications like this in brain-transplant stories. If your brain were put into my head, the resulting person would know your friends and relatives, would have vivid memories of your actions, would feel responsible for them, and so on. He would have no such intimacy with my circumstances. Everyone would have to treat him as if he were you. And this

would be so even if we were organisms and he was really me with a new brain. In both cases, the animalist's situation is like that of a strict nominalist doing mathematics. She will use numerical terms such as '4' or ' $\sqrt{17}$ ' as if they referred to something, temporarily setting aside her philosophical conviction that there are no abstract objects. Neither animalism nor nominalism is an easy philosophy to accept. But the alternatives aren't either.

11. Shared-Brain Cases

What about the other sort of argument, based on twinning cases where two torsos and two sets of limbs emerge from a single head? It goes like this:

10. In shared-brain cases there are two organisms but only one person.

Thus,

11. At least one of the organisms is not a person.

12. Either both organisms are people or neither is.

Thus,

13. Neither organism is a person.

So

2. There are human people who are not organisms.

3. If some human people are not organisms, none are.

Thus,

4. No human people are organisms.

As before, I accept that 11 follows from 10, and will not dispute 3. And I can see no grounds for denying 12. The conclusion follows from 11, 12, and 3. That leaves 10. I am willing to concede that there could be two organisms in such a case. So the point at issue is whether there must be only one person. Why couldn't two people share a brain?

Campbell and McMahan write,

There would undeniably be a person present, someone who, with his single mouth, could engage with us in rational discourse while punctuating his assertions with multibrachiate gestures. But it is highly implausible to suppose that there are two persons present. There is only one cerebrum--one consciousness-generating entity--and therefore a single unified mind, just as in the case of any ordinary person. How many limbs or organs there are below that single center of conscious experience seems irrelevant to how many persons, or individuals of our sort, there are. (2010: 299)

Because there is just one organ of consciousness, they say, there is "a single unified mind", and therefore one person. But what is "a single unified mind"? What sort of thing is a mind, unified or otherwise? If a mind is a conscious being, the

claim amounts to saying that there is just one person, since a person is a mind in that sense. But this simply assumes what the reasoning was supposed to establish. Alternatively, a mind might be what I have been calling a mental system. As all parties agree that there is just one mental system here, that would make the premise uncontroversial. But then why should it follow that there is just one person? Why couldn't two people share a single mental system? That, once again, is the point at issue.

It undoubtedly sounds odd to say that two people could share a mind. But this is due to the protean nature of the word 'mind'. This passage is a good illustration of the danger in using that word when doing metaphysics. Any metaphysical argument containing the word 'mind' as a count noun should retain its force when rephrased in less slippery terms. Otherwise it is sophistry and illusion.

Campbell and McMahan also say that how many limbs or organs there are below the brain seems irrelevant to how many people there are. But even if it is irrelevant, this does nothing to support their conclusion. Perhaps what is relevant is how many organisms there are, since people are organisms.

Is there any other reason to think that two people could never share a mental system? It would of course follow from the psychological individuation principle--the claim that the number of people is necessarily equal to the number of appropriately sophisticated mental systems (§5). But we've been through all that.

Philosophers sometimes say (without giving any argument) that a mental state can never be shared: it cannot be a state of two beings at once.⁶ Since sharing a mental system would entail sharing mental states, it would follow that two people could never share a mental system.

If this has any force, it has to do with the nature of mental states, and not the nature of states generally. Think of ordinary conjoined twins who are both two people and two organisms, but share their intestine. Presumably the digestive states "realized in" that intestine would be states of both twins. If people can share digestive states but not mental states, the difference can only be due to some special feature of the mental. But I don't know what this feature could be.

12. Conclusion

Most of the arguments against animalism based on conjoined twinning either assume the point at issue, or else rely on dubious and unargued assumptions that would rule out animalism on their own, without the need to consider twinning. If conjoined twinning has any metaphysical interest, it is probably that it reveals some implausible consequences of animalism. And animalism really does have implausible consequences in imaginary twinning cases (even if not in real ones). How important this is depends on what it adds to the familiar objections to animalism based on imaginary cases of brain transplantation. Is it harder to believe that someone might have two brains than to believe that you wouldn't go

⁶Lowe 1996: 31 is an example.

with your transplanted brain? Or hard in a different way? That is what the friends of the twinning arguments need to show. As far as I can see, they haven't yet done so.

Every important philosophical claim is hard to believe. So are many well-confirmed scientific claims. But it's foolish to call something unacceptable until you know the consequences of rejecting it.⁷

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