Countering the Appeal of the Psychological Approach to Personal Identity

I. Introduction

Defenders of the Psychological Approach to Personal Identity (PAPI) insist that the possession of some kind of mind is essential to us. Their opponents fall into two camps. One group maintains that we are essentially bodies, each of us existing not only when conscious and alive, but also in the absence of such properties as long as one's corpse retains its basic structure. The other camp maintains that we are each essentially a living being that is unable to survive death as a corpse, but did exist once as a mindless embryo and could survive in a permanent vegetative state. My aim is to make the position of the second camp, the Biological Approach to Personal Identity (BAPI), appear as attractive as the PAPI.

It is possible for me to count on one hand those philosophers who believe that we are each identical to our body, and to use the fingers of my other hand to count the supporters of the BAPI. The PAPI is intuitively more appealing than its rivals. It is the favored approach not just of those who are religious or secular dualists, but also of those who believe we are material beings capable of thought. I will first offer an account of why the judgment that we are essentially psychological beings and not biological entities is elicited by scenarios involving brain transplants, the onset of irreversible noncognitive states, and Siamese twins sharing every organ but their cerebrums. After explaining the attraction of the PAPI, I will try to offset its appeal by offering alternative explanations of why we care about the person in the future with one's transplanted cerebrum and are not concerned about the organic life that made it possible for us to think and feel after our mind is erased by an irreversible coma or permanent vegetative state. Another goal is to supply readers with an account of why they do not have to believe that each cerebrum of the two headed organism supports the mind of a distinct person.

My contention is that the advocates of the BAPI don't have to concede that only the PAPI

can explain our reactions to these real and imagined scenarios. There is no need for them to bite the bullet and just insist that people should disregard their intuitive responses to comas, vegetative states and the sci-fi scenarios because the PAPI has problems in other areas that the BAPI doesn't. The BAPI can offer as satisfactory an account of the three scenarios as the PAPI. To explain away the belief that we are to be found wherever our functioning cerebrum is located, I will mostly draw upon Derek Parfit's work on our identity not being what matters to us.[1] That, of course, has been done before. What I will add to the debate is a response to the powerful criticisms of Parfit's position that Peter Unger has put forth.

A very different argument will be used against the PAPI's interpretation of an extreme case of conjoined (Siamese) twins as being distinct persons in virtue of separate consciousnesses. Such a being, known as a dicephalus, has two cerebrums but otherwise no more organs than the average reader. So by any plausible account of biological individualization, the dicephalus is one organism, not two conjoined organisms. The dicephalus poses a major problem for the BAPI. If there are two distinct persons rather than one person cut off from himself, such persons can't be identical with one and the same organism. It may then be thought best to construe such persons as parts of the organism. As a result of this, we would have less reason to maintain that an ordinary person is identical to an organism, as opposed to being a part of or spatially coincident with an organism. By relying upon what I take will be the reader's disagreement with Locke's conjecture that a dreaming Socrates and an awake Socrates are two distinct people if the thoughts of each are inaccessible to the other, an argument will be made that the dicephalus is just one person cut off from himself.

What I hope to produce is a stalemate, leaving the reader with two equally adequate accounts of the same phenomena. Although I can't do more than barely sketch the argument, I believe that the

stalemate can be broken in favor of the BAPI. This is because the BAPI avoids the metaphysical quandaries that arise from positing that the organism and the person are not identical but are spatially coincident.[2] Perhaps the most problematic aspect of accepting spatially coincident material entities is that there would then appear to be one too many thinkers.[3] Since the person can obviously think, the organism should also have such a capacity since it possesses the same brain as well as every other atom. That would mean there now exist two thinking beings under the reader's clothes! Although the reader can see that there are reasons to be skeptical of the PAPI, these considerations may not be decisive given the initial, intuitive appeal of the PAPI's account of the transplant, coma and dicephalus scenarios. So my hope is that the arguments of this paper can reveal the PAPI to be equally capable of explaining brain transplants, irreversible non-cognitive states, and two-headed organisms.

II. Brain Transplants and Prudential Concern

The response of most scientifically informed laypeople and philosophers to the prospect of their brain being transplanted is that since their brain realizes (supports or subserves) their mental life, they are to be found wherever it ends up functioning.[4] Since a person could hypothetically survive such a transplant, but in doing so would have left a body or organism behind, this allegedly demonstrates that one is not essentially a body or human organism. That this is the case appears even clearer if the original organic body is destroyed after the brain is removed for then the person and the body or organism could not even continue to exist as a scattered object.[5] Since the person would still exist, the person could not be identical to the human organism, nor a mere stage or phase of the organism, for beings with different persistence conditions can't be the same entity. The transplant scenario thus seems to show that we are essentially persons.

If people are instructed that it is just their upper brain, the cerebrum, that "contains" or

"realizes" their mind, they modify the above account and insist that the location of this part of the brain determines their whereabouts. This is true even when informed that there is no possibility of consciousness without a functional brainstem. A removed cerebrum will not support consciousness during the transplant procedure, or subserve it afterwards, unless provided with an artificial or new organic brainstem. I expect that most neurologically informed people would believe that if their cerebrum faced imminent destruction they too would soon be destroyed, even if their brainstem would remain unscathed. But if the cerebrum's functions are preserved, destroying the attached brainstem and replacing it with a duplicate does not seem like a threat to one's identity and survival. It is more like a change in the power source of a computer, a change that leaves the computer's hardware and software intact. Although the computer won't function without the power, just as the cerebrum won't support conscious life without the brainstem, the *particular* power source or brainstem seems irrelevant to survival of the computer or person. Perhaps part of the reasoning behind why we locate the physical basis of our psychology in our cerebrum comes from the prospect of rearranging our cerebral neurology in a way that changes our desires, beliefs, memories etc. There is no parallel rewiring of our brainstem that allows it to still subserve consciousness, but likewise changes our personality.[6] Along the same lines, surgeons poking the brainstem can't make the patient recall certain events or odors, while it has been reported that probing the cerebrum can provide such effects. Furthermore, damage to the brainstem may destroy consciousness but lesser damage doesn't correlate with a narrower loss of mental capacity as localized damage to the cerebrum does. It is this type of correlation of our psychology and the cerebrum which leads us to understand the former as realized by the latter, despite the importance of the brainstem's role in making awareness possible.

Following Olson, let's call the standard response that a person has switched bodies when his brain has, the "transplant intuition." Anyone with the transplant intuition should also have the

"irreversible coma" or "vegetable intuition."[7] This is the belief that one could not exist in a permanently noncognitive state. Unlike sleep or temporary unconsciousness, the destruction of one's capacity for sentience is thought to doom a person. It would be difficult to consistently maintain a belief in a brain transplant being the relocation of a person while holding that an individual can survive in an irreversible coma or permanent vegetative state.[8] The reason for this is the vegetable's upper brain actually liquifies and thus the contents of his skull resemble that of a body that has had its cerebrum removed in a brain transplant procedure. If the individual could survive the permanent loss of consciousness due to an injury or illness that robs the cerebrum of its functional capacities, then an individual should be able to stay behind in the brainless body when his functional (cerebrum) is transplanted.[9]

Since the transplant and the coma/vegetable intuitions stand or fall together, I will contest just the transplant intuition in this section. My contention is that since we are not essentially persons (i.e., psychological beings), we are not transplanted when our cerebrums are. The cerebrum is an organ, no more essential to our identity than its fellow organ, the kidney. Just as we are not transplanted when out kidney is, nor do we switch bodies when our cerebrum does.[10] If we were essentially psychological beings, then the cerebrum would indeed have the importance most give it. However, to use the language popularized by David Wiggins, the substance that we are essentially is that of an animal, "person" being a mere phase sortal.[11] If readers resist this conclusion and allow the transplant intuition to persuade them that they are essentially persons, they will find themselves entangled in all sorts of metaphysical quandaries and forced to hold the very counterintuitive positions.

The reason the transplant intuition is so effective is that the future recipient of one's brain elicits from each of us a special type of concern typically felt only for the being with which we are

identical. The same kind of attitude that we take to our normal (transplant-free) future when we are thinking selfishly or prudently, appears to be manifested in the regard that we show the future well-being of the creature which receives our transplanted upper brain.[12] This naturally leads us to conclude that we will be the individual which is the recipient of that type of concern. Our attitude to the prospect of future pain supports this view that we end up where our cerebrum does. If we are each told that we will swap cerebrums with a stranger, and one of the two involved organisms will be tortured after the switch, considerations of self interest would lead us to hope that the pain was inflicted upon the organism that originally contained one's cerebrum.

III. Fission and Quasi-Prudential Concern

To counter the prudential beliefs canvassed above, I shall draw upon our reactions toward the future well-being of a pair of persons that result from the hypothetical case of our brain fissioning and transplantation of each hemisphere.[13] While we are not identical to either of them, we yet seem to care about them in much the same manner as we would about our own future self in the absence of fission. I will then argue that the hypothetical transplant case without the fission of cerebral hemispheres should be understood as analogous to the fission case. Our concern for the being that receives the undivided cerebral hemispheres should not be interpreted as providing any more metaphysical insight into our identity than such concern did in the fission scenario. Questions about what matters to us and whether we would survive some event should be separated. The answer to the first will not enlighten us about the latter.

In order to better appreciate the hypothetical fission scenario, first consider an all too real possibility that you someday suffer a stroke that destroys one of your cerebral hemispheres. The stroke would be a maiming, and many skills and memories would probably be lost, but few readers would consider the loss to indicate that they no longer exist. Now assume that the one remaining

functioning brain hemisphere is transplanted. Most readers would maintain that they would be transplanted when their one surviving working hemisphere is removed from their skull and placed in the empty skull of another creature.

Readers should next imagine a different kind of transplant scenario, in which the two hemispheres of their upper brain are divided and transplanted into two different brainless human beings. What has happened to the reader? There are a number of objections to the reader surviving such a case of fission.[14] It would be very strange to say that the reader is a scattered object, half in one body and half in another. If we took that attitude to cell division, our entire body would be composed of a single scattered cell.[15] Since the cerebral hemispheres appear to support minds that are *not* each part of a larger mind, the result of fission seems to be a pair of persons. Since the two resulting persons are not identical, the classical conception of identity would prevent the reader from being identical to both of them. If identity is instead understood to be occasional and contingent, the two post-fission persons would not be identical after the surgery, but they would be identical prior to the fissioning. The oddity of this is compounded by the fact that it will be true before the division that the prefission person will be in two separate places after the fissioning.[16] Finally, it is utterly arbitrary to identify the reader with one of the resulting persons and not the other, especially if we assume for the sake of argument, that each possesses the same capacities and memories.[17] So the answer to the above question seems to be that the reader ceases to exist.

Yet we would seem to care in a quasi-selfish or quasi-prudential manner as much about each of the resulting persons who respectively possess one of our cerebral hemispheres as we would care about ourselves if we each survived a stroke with just one hemisphere intact. The prefix "quasi" is added for while the concern seems to be the selfish or self-interested kind most of us experience, it is a conceptual truth that prudential concern and selfishness is interest in one's own welfare. Since one

doesn't survive fission, the concern for the beings each with half of one's brain can't be *self*-concern.[18] I suspect that even the most selfish person would take on considerable pain prior to cerebral division if this is the only way to prevent even greater pain being suffered post-fission by each of the beings with one of the two hemispheres. According to Parfit, the moral of such reactions to fission is that identity is not what matters most to us. Parfit explains that "by what matters to us," he means "not what makes our survival good, but what makes our survival matter, whether it will be good or bad; What is it, in our survival, that gives us a reason for special anticipatory or prudential concern."[19] He insists that what we care about in normal cases of survival isn't that we persist, but that our psychology does.[20] We care about the being in which the physical realization of our psychological capacities are found.[21]

Parfit realizes that it is hard to believe that identity is not what matters so he offers an analogy to help us better grasp his claim. He says to imagine a community of people who are like us but with two exceptions. First, because of facts about their reproductive system, each couple has only two children, who are always twins. Second, because of the special features of their psychology, it is of great importance for the development of each child that it should not, through the death of its sibling, become an only child. Such children suffer psychological damage. It is thus believed, in this community, that it matters greatly that each child should have a twin.

Now suppose that, because of some biological change, some of the children in this community start to be born as triplets. Should their parents think this is a disaster, because these children don't have twins? Clearly not. These twins don't have twins only because they each have *two* siblings. Since each child has two siblings, the trio must be called not twins, but triplets. But none of them will suffer damage as an only child. These people should revise their view. What matters isn't having a twin: it is having at least one sibling.

In the same way, we should revise our view about identity over time. What matters isn't that there will be someone alive who will be me. It is rather that there will be at least one living person who will be psychologically continuous with me as I am now, and/or who has enough of my brain. When there will be only one such person, he can be described as me. When there will be two such people, we cannot claim that each will be me. But that is as trivial as the fact that, if I had two identical siblings, they could not be called my twins.[22]

Fission presents us with a case of quasi-prudential concern that would be basically no different from the concern that the stroke victim would show to the one and only functional hemisphere being transplanted. This suggests that we may be misled in the nonfission transplant cases. Our quasi-prudential concern falsely leads us to believe that the being we care about is a future being with which we are identical. It seems to me that Parfit's insight can undermine many a reader's initial response that he could be transplanted if his (undivided) upper brain is. My hope is that the reader comes to see the cerebrum transplant to be as *metaphysically* unimportant as a kidney transplant.

IV. Unger's Attack on Parfit's Thesis of the Unimportance of Identity

Peter Unger disagrees with the Parfitian thesis. He uses two thought experiments to show that what matters most to us is our continued existence. He aims to show that our prudence-like concern is correlated to our survival. If we are not going to survive a procedure, our concern for the being that does emerge is less than it would be if we had persisted. Unger doesn't need to show that there is no quasi-prudential concern, only that it is less than that felt in cases of survival. In the first thought experiment, Unger has readers imagine a case of hypothetical "century fission," in which their brains are divided into 100 equipollent (i.e. psychologically redundant) persons, each with the exact same memories, desires and capabilities that the reader possessed as a single person before fissioning.[23]

Unger argues that we each would take on less of a burden prior to century fission to prevent any or all of the resulting 100 persons from being tortured than we would undertake if faced with the prospect of our undivided self facing the same degree of torture in the future. Unger infers that this shows that we care more for ourselves than for those beings that possess a large enough portion of our original brain to be persons, but due to the logic of identity are not identical to us. So, contrary to Parfit's thesis, what matters to us is our continued existence. Prudence-like concern does indeed track identity.

I would agree that Unger has provided an accurate *description* of how most people would respond to the prospect of pain before and after century fission. Nevertheless, I will provide a different *explanation* of their reactions than Unger offers. My contention is that people just have trouble imagining that their brains can be divided into a hundred redundant slices, each with the same thoughts, wants, abilities, and sensitivities to pain as the other. This failure of imagination is what accounts for their lesser concern towards the hundred fissioned slices than they each have for our own nonfissioned future self. So we should not draw any conclusions about identity from this. Our response to century fission is analogous to what our reactions might be if we lived for a thousand years or could die and come back to life nine times. For instance, regarding the first hypothetical, we would probably care less about what happens to us nine hundred years into the future than a year from now. While we would take on more burdens in the immediate present to avoid torture one year from now than we would to avoid the same torture nine hundred years from now, this lack of concern shouldn't lead us to believe that we would not be around nine hundred years from now.[24] The problem is that we merely failed to imagine the pain vividly or really didn't take to heart that the torment would be inevitable unless certain measures were now taken.[25] Anyway, even if my explanation is inadequate, if our reactions to normal fission and century fission

diverge, since the former is more realistic, i.e., a closer possible world, it should be understood, pace Unger, as a more reliable indicator or our deepest convictions about personal identity.

Unger also attempts to combat the Parfitian thesis that identity is not what matters to us by relying upon a thought experiment where one's brain is replaced piecemeal, but in a manner that is much faster than the natural replacement of one's brain matter over time. He calls this thought experiment "The Spectrum of Congenial Decomposition with Reconstruction."[26] The replacement is "congenial" for it realizes qualitatively the same psychology, even if it occurs too quickly for survival. (If the basis for mental capacities were removed and not replaced, some high-minded people might let their distaste for an undignified mental life affect their expression of concern towards the resulting creature and this would bias the results.) Unger claims that at some point in the spectrum thought experiment, our conventions dictate that too much of one's brain has been replaced too quickly for it and thus one's person to survive.[27] There has not been sufficient time for the existing brain to assimilate the new parts. Such extremely speedy part replacement results in a duplicate of the original brain and person.[28] Unger maintains that the attitude we would take to this threshold being crossed and our having been replaced is one in which we would care less about the resulting brain and person even though the resulting person's psychology is qualitatively identical to ours. Unger believes that since there must be a dividing line, even if it is just one cell that separates our last moment of existence from that of a different person and this line will distinguish a being that we care more about than the new person that is just one cell different from ourselves. Although we would still project considerable quasi-prudential concern for this future being which contains all of our brain but the one crucial cell, the concern would be *slightly less* than that felt towards the future of the brain when it would still realize our own identity. This shows, Unger alleges, that what matters most to us is our own survival. He concludes that prudence-like concern does track identity,

dropping slightly when identity fails to be preserved.

My view of Unger's spectrum thought experiment is that our prudential or quasi-prudential concern doesn't track our identity, rather it is the other way around. More precisely, the judgement that most people make about their survival follows and is dependent upon a prior judgement of what they care about. People are tempted to say that they would cease to exist when there isn't enough of their most treasured desires and interests still physically realized. So what happens when they are considering the thought experiment is that they first stop to care as much about some mind-realizing grey matter and then because of this, they mistakenly judge that they would cease to exist at such a time. This conclusion can also be supported by the previously mentioned standard case of fission. It showed that what people care about is the respective continuous fulfillment of certain aspects of their brain's psychology and not who fulfills them.

Unger doesn't tell us what parts of the brain are being too quickly replaced. But if a lot of our brain that was being replaced controlled involuntary biological systems or various unconscious aspects of perception, we wouldn't think we ceased to exist. So Unger's readers must be assuming it is the part of their mental life which houses their conscious life which is being too quickly replaced.[29] It is only when enough of the physical realization of their desires, memories, abilities and habits is too quickly replaced are people tempted to say that they have ceased to exist. So, again, it isn't their existence or its absence that is driving their degree of concern for a certain mental life, rather it is the converse. People are making their decisions about their continued existence when too much of what they are concerned about, i.e. their dearest psychology, has been too rapidly exchanged for physical duplicates. So it is only given this assumption that it follows that our utmost prudential concern and our identity will not diverge.

Unger's thought experiment is thus less successful than he thinks because of the absence of

an independent decision about our continued existence which is *then* followed by a change in quasi-prudential concern. What Unger needs is a clear point at which we don't exist any more to be established independently of our concern about certain mental activities (as in the case of fission where it is the logic of identity that produces the judgment that we wouldn't survive the procedure.) Then what must follow is that our prudence-like concern drops off on the recognition of this fact. But, as I said above, Unger is only able to get us to imagine his dividing line by our first thinking that too much of our dearest psychology is gone. Thus this drop in what we care about is what determines most people's judgments about their no longer existing. Unger has matters backwards.

V. Brain Transplants and the *Organism's* Lack of Prudential Concern

Perhaps the reader is still not convinced about my Parfitian-inspired account of the relation between identity and prudence-like concern. If that is the case, then the argument offered in this section could perhaps tilt the scales in favor of Parfit's thesis that identity is not what matters most to us. Ironically, the seeds of defeat of the PAPI were planted in the very transplant scenario that the advocates of the psychological approach believe is the decisive argument for establishing that we are persons and not animals. We can see that identity is not what matters to us by attending to the thoughts and actions of the normal human organism to the prospect of an upper brain transplant.[30]

Since the human organism and the person have the same brain, it would seem to follow that the organism has all the thoughts that the person does prior to the latter's transplantation since it was spatially coincident with the person. If one can use the brain to think, the other should be able to as well. If the person cares about the being that will receive the cerebrum transplant, so does the human animal. Thus the organism presents us with a clear case in which a thinking substance, one that is atom for atom the same as the person, doesn't care in the quasi-prudential (or quasi-selfish) way as much about its own survival as it cares in a quasi-prudential manner about a being distinct from it.

No organism is transplanted when just its cerebrum is, just as no organism is destroyed when only its cerebrum is.

Virtually every human organism cares most about the being that ends up with its upper brain and conscious mind, even if it will receive this being's brain in a swap. We can more vividly imagine this by stipulating that one of the two beings that will be involved in a brain swap must be tortured some time after the transplant occurs. The organism, prior to the brain swap, would choose a future in which it is tortured after the acquisition of its new cerebrum, preferring to spare the organism where its old brain will end up. We can assert this with as much certainty as we can our claim about whom the person would decide to torture since the two share the same brain and thus have all the same thoughts.[31] Thus survival (i.e., identity of a present being with a future being) is not what matters most to at least one thinking substance - the human organism. So if there are two conscious beings under the reader's clothes, when one of these, the person, claims both that identity is what matters most in survival and that he would be transplanted if his cerebrum is, the organism has expressed a thought of the same character. So the organism has actually demonstrated considerable quasi-prudential concern for a being he is not identical with, and little concern for himself.

The reader might respond that survival *does* matter to the organism, it just is that it mistakenly thinks that it is the person. According to this line of thought, to truly undermine the view that identity is what matters, the organism must know that it is the organism and then care less about its persistence than the survival of its psychology in another organism. However, this protest can be easily met and the demanded test provided. The "self-aware"organism would realize that it doesn't survive the transplantation of its cerebrum but still would not care about its brainless state or even if a new cerebrum was placed in its partially empty skull. I consider myself such an organism. I don't care at all for surviving in a permanent vegetative state or even with a new functioning cerebrum as a

result of a brain swap. Prior to the cerebrum swap procedure, I would care about the being that will end up with my cerebrum, but I don't identify myself with that being. So if the PAPI is correct and the organism is not identical to the person, then the theory ironically provides a splendid case of a thinking being, an organism, one with cognitive capacities just like those of a person, that cares more in a quasi-prudential way for a being with which it is not identical.

Assuming that the organism can really think and is truly distinct from the person, then we have good reason to believe that such quasi-prudential concern is not an accurate guide to where each organism substance ends up after a transplant. What is true of the human animal, may also be true of the alleged person substance that is atom for atom the same as the thinking animal. Since one thinking being, the animal, doesn't care that much about its own future persistence, and is more concerned with another being that is a distinct animal which will in the future "house" its old mind/brain after a swap, it becomes more plausible to think the same could be true for that other thinking being, the person.

So if the human animal doesn't care most about its own future (in the transplant case it stays behind), then there is more reason to think the same about persons. Persons too could care just as much about a future entity that won't be them as they do about their present self. Once readers allow this possibility, they will be more receptive to just identifying persons and organisms and accepting that their persistence conditions are biological, not psychological. Readers may have previously resisted understanding the term "person" as a mere phase sortal because the actual person cared most about the person that the transplanted brain made possible. They naturally assumed that the original person went with the transplanted cerebrum and left the organism behind. But once the intimate connection between prudential concern and identity is undermined, we become free to see the person as the animal. The person is not a "competing" or "coinciding" entity, another substance, but is the

human organism.

To claim that the term "person" is a phase sortal is to assert that persons thus have the same ontological status as students and lawyers - they are demarcated by nonessential attributes that an individual can possess for a time, but can exist without. Human organisms begin to exist before they become persons or lawyers and then with some bad luck such as an irreversible coma or disbarment, they live out their lives without any longer being persons or lawyers. But since the terms "person" or "lawyer" pick out a being that is respectively a lawyer or a person for a stage of its existence, we are able to utter the superficially paradoxical statement that "The person (or lawyer) existed before he became a person (or lawyer)." Likewise, we can use "person" or "lawyer" to refer to a human being after it enters a permanent vegetative state or ceases to practice law. It isn't incoherent to say that "The lawyer is no longer a lawyer." The first token of "lawyer" refers to the entity that was a lawyer for a phase, the second term reports that the individual no longer has the property of being a lawyer.

VI. Siamese Twins: One Organism and Two Persons?

We are familiar with Siamese twins that share some organs, skin or bones. If there is a duplication of vital organs, they may each be able to survive separation. Consider a case that has never occurred, but seems metaphysically possible, in which there is no duplication of any organ but the cerebrum.[32] Because this creature, the dicephalus, possesses two cerebrums, there *may* be two persons present, but there is only one organism since an extra cerebrum no more produces a second organism than would an eleventh finger or third kidney. The mental contents of each of the twins are opaque to the other. Both have the requisite psychological capacities for personhood, whether this be consciousness, self-consciousness, a moral sense, rationality, agency, memories etc. It would seem that they are separate persons with distinct persistence conditions, one person being able to survive the destruction of the other cerebrum and the person it realizes.

The existence of such creatures make it very difficult to maintain the position of the BAPI that a person is just a phase of an organism. According to the biological approach, the person and the organism are identical, the terms "person" and "organism" just refer to the same entity in virtue of different properties. But how could two distinct persons be one and the same organism? If they are not identical to each other, they both can't be identical to the organism. The BAPI has to treat the Siamese twins as just one thinking individual cut off from himself - half his thought not accessible to the other. That strikes most readers as an implausible interpretation. They will find it more intuitive to treat each head as belonging to a different person. And as Jeff McMahan writes: "because there is no reason to suppose that the dicephalic twins are a different kind of entity from ourselves, or that a different account of personal identity applies to them, we should further conclude that we are not organisms either."[33]

I suggest that we resist the initial plausibility of the explanation offered by the PAPA and interpret the phenomenon of the two-headed organism as just one person "cut off" from himself. Consider Locke's example of Sleeping Socrates and Waking Socrates.[34] Every night Socrates dreams and while doing so has no memories of a waking life. And when awake, he has no recollection of his dream life. (Perhaps he believes he is an Egyptian pharaoh rather than a Greek philosopher in each of his dreams.) Locke concluded that Sleeping and Waking Socrates were two different people for they were psychologically isolated from each other. I assume that most readers would instead be more receptive to the claim, pace Locke, that there is one person, Socrates, cut off from himself. Perhaps they would say the same in a case of multiple personality disorder. The mental disease involves just one person who lacks an integrated mental life, rather than many persons cohabiting. Supporting the former judgment is that people generally don't mourn when a cure is obtained resulting in an integrated mind with no trace of the other

personalities. If it was believed that persons were destroyed when multiple personalities were eliminated, at least regret, if not grief, would be appropriate.[35] I think defenders of the PAPI will be in the strongest position if they can adopt Locke's position and claim there are two people, Waking and Sleeping Socrates. If they resist this interpretation, I don't see how they can use the two-headed case to support their attack on the BAPI.[36] But I don't envy readers who embrace this Lockean interpretation of the sleeping person for it is very implausible. However, some readers might protest that the sleeping and waking Socrates case is different from the Siamese twins in a number of ways. First, in the two-headed scenario, there can be concurrent chains of thought opaque to each other. Sleeping Socrates and Waking Socrates never are thinking simultaneously. That might provide reason to hold that the latter are really not two people, but just one cut off from himself. The two headed, on the other hand, really are two distinct persons.

The proponents of the BAPI could respond by making use of Socrates's Freudian unconscious and Socrates' conscious superego. Socrates may be having deep, dark, sexual thoughts about his young wife at the same time as he consciously ruminates upon the form of justice. Neither chain of thought is accessible to the other. I assume that most readers would *not* describe this as involving two persons, "Id Socrates" and "Superego Socrates," but rather as one person cut off from himself.

Readers sympathetic to the PAPI may instead respond that it is not the different *times* of thought but the distinct locations, physical constitutions and thus (apparent) differences in persistence conditions which prevents annexing the two-headed case to that of Sleeping Socrates. Since one cerebrum could go on producing thought regardless of what happened to the other cerebrum, this suggests that there are two people, not one. A massive stroke that destroys one

cerebrum is not the maiming of a "larger" person, the loss of half of the person's mental abilities. Rather, it is the total destruction of a distinct person. There is nothing similar in the case of Socrates. If the sleeping Socrates' mental abilities are destroyed, so are those of the waking Socrates and vice versa.

My response is that the two-headed creature and Socrates may not be as different as suggested in the above passage. Too see this, it may help to first consider a computer that can run a number of programs. A virus or glitch renders it unable to run certain of those programs, but it can still operate others. Something analogous could happen to Socrates. Perhaps different neurons fire when Socrates is asleep than when he is awake, or if it is the same neurons that are involved, they could do their signaling in different sequences. These differences in firing patterns keep the dreaming Socrates from knowing anything about his waking life and vice versa. Now suppose that one of these sequential patterns is permanently blocked. We would then have something similar to the case of one of the organism's two cerebrums being *physically incapacitated*. Since we have already assumed that Sleeping Socrates and Waking Socrates are one person, we would not consider the permanent loss of the capacity to dream to be the destruction of the person, Sleeping Socrates. Instead, we would understand the event as the loss of certain mental capacities and states of a person which had previously been inaccessible to the rest of that person's mind.

Readers may think that there is a third difference between the dicephalus and the sleeping and waking Socrates cases. They may argue that the conceptual skills of Sleeping Socrates were acquired from learning processes undergone by Waking Socrates. This single acquisition and subsequent concept sharing would not be the case for the two minds in the dicephalus scenario. It is conceivable that what each of the dicephalus persons knows has been acquired completely independently of the other person. It would be easier to imagine this if the two cerebrums each

had access limited to an ear or eye that the other didn't. Or, sticking to the original set up in which everything is shared but the two cerebrums, the perceptual signals could be blocked right at the point of entry to the respective cerebrums. This difference may be thought to provide a reason for believing there are two minds and two persons in the dicephalus scenario, while just one divided mind and person in the Socrates case.

I have some doubts as to whether this difference in concept acquisition is in principle significant. Anyway, it might be metaphysically as well as physically possible for Sleeping Socrates to learn what Waking Socrates cannot. (And we certainly have no trouble imaging that Waking Socrates could learn many things not accessible to Sleeping Socrates.) Readers have no doubt heard of people claiming to have acquired knowledge by playing tapes while they slept. Even if readers are skeptical of such reports, I don't see why we can't legitimately imagine that actually happening - and to a much greater degree than has been previously claimed. Moreover, we could add that Sleeping Socrates sleepwalked or was otherwise involved in some behavior if more interaction with the world is needed for a plausible account of learning, especially of a first language. And this information, like much of our dream life, might never be shared with the waking mind. Thus Sleeping Socrates could learn in a manner that was not parasitic upon Waking Socrates' education, therefore vitiating the alleged difference between them and the dicephalus.

My recommendation is that just as we would not treat the sleeping Socrates as a different person from the waking Socrates, we should not treat the two cerebrums as each realizing different persons. Thus unless readers treat the sleeping Socrates as Locke does, they cannot analyze the two-headed as two persons on the grounds that their thought occurs at different times or the thoughts of one stream of consciousness can be physically incapacitated without interfering with the other stream

of consciousness.[37]

VII. Why the PAPI Should not Believe Two Heads are Better than One

In our earlier discussion of the cerebrum transplant, the PAPI provided some ammunition to the BAPI by assuming the organism and person were distinct. Add to this the assumption that the organism could think, and we had a fine example of an intelligent being (the organism) for whom identity did not matter, i.e., what matters to it wasn't its survival but its psychology continuing. Ironically, in the Siamese twin scenario, the same assumptions of the PAPI again provide the BAPI with the resources to explain away the initial appeal of the psychological approach. According to the PAPI, the organism and the person are distinct substances. Since the two heads belong to the same organism, then if the organism can think, it can think with both cerebrums. We would describe this thinking organism as either one individual whose mind is divided, or if the existence of two minds is not in doubt, as one being whose thoughts are cut off from each other. So if the PAPI is correct that a person is a substance distinct from an organism, then provided the two-headed organism can think, *its* thought is cut off from itself. It will be a thinking being possessing conscious states inaccessible to the self-conscious reflection of its other states.

It is somewhat ironic that the PAPI's presupposition that the person is a substance distinct from the organism guarantees the existence of a creature with a divided mental life. It was the counterintuitiveness of treating Siamese twins as one being with a divided mental life that the supporters of the PAPI were appealing to in order to convince readers that their approach was superior to the BAPI. Since the very assumptions of the PAPI entail in the described case of the Siamese twins that there is a thinker (an organism) with two streams of thought, each inaccessible to the other, the advocate of the PAPI can't reject the BAPI on the grounds that its treatment of the Siamese twins is implausible. Unless supporters of the PAPI have an argument that can deny thought

to the human organism, they will have to admit that their theory posits a thinking being cut off from its own thought, thus undercutting the initial appeal of their theory when contrasted with the BAPI in its handling of the two-headed organism.

Persons and Psychological Continuity

The PAPI was initially assumed to be able to deal with the transplant and dicephalus scenarios in a far more intuitively manner than that offered by the BAPI. We have seen that this intuitive advantage turned out to be far less than what was initially thought. In the preceding section, the appeal of the PAPI in making sense of the dicephalus was undercut by its own assumptions committing it to the existence of an entity, the organism, with its thought radically cut off from itself. And our earlier discussion of the transplant scenario revealed that there was a thinking organism, quite similar in cognitive abilities to the person, that cares less about its continued existence than about the entity that ends up with its functioning upper brain. This lack of prudential concern on the part of the organism indicates that concern does not track identity for the organism. This suggests that those who think they are essentially persons might likewise be misled by their concern to posit that they would have switched bodies when their cerebrums did.

However, it might be maintained that the advocates of the PAPI can just abandon the view that what matters is identity, as presently conceived, while still insisting that we are essentially persons rather than organisms.[38] They can make either of two responses to my position. One is that they could just retreat to the view that it is psychological continuity *with* identity that matters - and thus show less concern about other overlapping psychological sequences in the absence of identity. The alternative response is for them to claim that being identical to a future entity is unimportant for it is just psychological continuity that matters. In either case, the advocates of the PAPI could accept

most of what I said in this paper about Parfit, Unger, prudential concern and identity, but still insist that we were persons rather than organisms, our persistence conditions determined by psychological continuity. They could insist that just because there would be cases where we would not survive because of branching, cerebrum transplantation, the removal of too much of our brain or the process happening too quickly, this doesn't mean that we are not essentially persons. Rather, the proper conclusion is just that psychological continuity and the correlated concern are not sufficient to preserve personal identity.

In response to those advocates of the PAPI who claim that what is important is psychological continuity *with* identity, I will argue that they will be hard pressed to make the case that it is identity *and* psychological continuity that matters. This position is likely to collapse into it is just psychological continuity that matters, identity being unimportant. My contention is that it will be arbitrary to care about the identity of any particular sequence (psychological continuity) than a sequence that is very similar.

I will next widen my attack to include those who argue that it is just psychological continuity that matters, not identity, while still insisting that they are persons essentially. My contention is that they, as well as the first group of philosophers, would be much better off adopting the view that we are essentially organisms since this enables them to avoid certain metaphysical quandaries arising from positing the spatial coincidence of persons and organisms.

Could it be Identity WITH Psychological Continuity that Matters?

I will try to offer a rebuttal to the claim that what matters is the identity of a person with a certain psychological continuity. On this view, a person's identity across time depends upon a certain kind of psychological continuity. I will refer to such a conception of the person as a "sequence person," and the psychological continuity in question as the "sequence." So we are assuming that

sequence persons identify themselves as beings with a particular psychological continuity. What matters is the continuation of *this* sequence, one would not be identical to nor care about a person consisting of, or being the subject of, a different sequence. This person sequence, though not identical to its beliefs, desires, intentions and memories etc. (for identity is a one-to-one relationship, not a one-to-many relation), can't exist independently of having a certain chain of mental events. I think this is an inherently unstable position. I will try to show that those who claim to care about identity of the sequence person are probably mistaken and it is really just psychological continuity that matters to them, not the identity of a person consisting of a certain psychological continuity.

With the notion of the identity of a psychological sequence in hand, such sequence persons could imagine puzzle cases concerning the future identity of sequences, in which the identity of the sequence person may be indeterminate. (These could be Parfit-like spectrum, fission or fusion cases.) My contention is that, upon reflection, such persons would be concerned with whether a future sequence might bear some considerable degree of continuity to their present psychology, regardless of whether they will be identical to that sequence. It seems arbitrary for a person to identify himself with the one person sequence and not another closely related one, possessing but a few more or less thoughts. (Compare this dilemma of sequence individuation to Unger's "Problem of the Many" in which drawing the boundary of the cloud around one more or one less water molecule is arbitrary. Many collections of water molecules are equally good candidates for being THE cloud, assuming there are not embedded clouds.) Given that arbitrariness in distinguishing its constituent psychological states from those of its "close relative sequences," it is not surprising if the individual sequence person would judge its identity not to matter but to instead hold that what matters are the psychological ties that compose it – which could continue beyond its demise. Regardless of whether the indeterminacy affecting the sequence person is de re or just due to linguistic imprecision, since the person's psychology overlaps considerably with that of other sequence persons, it is easy to imagine

sequence persons caring less about their determinate survival than about the psychological connections that compose them and potentially survive their vague boundaries.

Could We Be Essentially Persons Without Our Identity Mattering?

Let's consider the claim that we are essentially persons, i.e., having a certain psychology is essential to us, but what matters to us is not that we are identical to a person in the future but that we have certain psychological ties to some person. The concern that I want to remove is that the defenders of the PAPI are still warranted in claiming that that we are persons and necessarily must have certain psychological capacities, even if it is true that what matters doesn't track identity. They can grant that we don't always survive where our concern and psychological continuity persists, yet still maintain that we are essentially persons rather than organisms.

One problem with the PAPI's insistence on some kind of mentality as essential is that it means that each of us was never an early fetus - and perhaps not even an infant if personhood involves self-consciousness. While this may be acceptable to some advocates of the PAPI, much more serious problems emerge at whatever time it is that the human organism's brain is developed enough in order that a new substance, the person, comes into existence. Since the organism does not go out of existence with the onset of thought, the problem of spatially coincident entities arises with the arrival of the person. And this brings the problem of there being too many thinkers, as well as rendering mysterious modal and sortal differences in the absence of physical and relational differences.

Admittedly, it is not easy for people to give up the view that it is their continued survival that matters.[39] But if they can, there is little reason for them to still maintain that they are essentially persons since such a claim entails that they are distinct from but spatially coincident with organisms. And this will give rise to all sorts of counterintuitive metaphysical positions that readers should only

contemplate accepting if they are strongly committed to hold that quasi-prudential concern tracks identity and thus they could each be transplanted if their cerebrum was and that they could not survive the onset of an irreversible coma or permanent vegetative state.

We can more easily grasp the metaphysical quandaries plaguing the PAPI if we consider the developing human fetus. A three month old fetus is not a person because it lacks the requisite mind. Since the human organism that is the early fetus doesn't cease to exist when its brain develops and the conditions for realizing the mental properties constitutive of personhood emerge, it will be spatially coincident with the person that comes into existence. Both the human organism and the person will be composed of the exact same atoms at the exact same place and time. They can't be identical if they possess different properties. For instance, it will be claimed that persons can be transplanted when their cerebrums are, while organisms cannot. The problem for the advocate of the PAPI is to explain how there can be two spatially coincident objects that are physically identical, yet have different mental, dispositional, modal and sortal properties. [40]

Posting such spatially coincident entities will mean giving up an intuitively plausible version of the doctrine of supervenience. If two entities are physically identical and possess qualitatively indistinguishable environments and histories, it is hard to envision how they could differ in (nonindexical) mental, dispositional, moral and sortal properties. But that is pretty much what the advocate of the PAPI is asking the reader to accept. If the spatially coincident entities did differ, they would then be distinct kinds of physical things with different dispositions and causal powers, yet these would not be grounded in any differences in their physical makeup, the laws of nature, or relations to the environment. For instance, the person could be relocated by a brain transplant and destroyed by a stroke, while the physically indistinguishable organism couldn't be so moved in the first scenario but could survive the cognitive destruction in the second. And the person could think

and act, while the spatially coincident organism, possessing the very same brain, could not. Or if it is granted that the organism could also think, then there would be two thinking beings where we would like there to be just one. And there would still be an unexplained sortal differences – for instance, two thinking beings, only one of which is a person, despite there being no difference in mental abilities distinguishing them.[41] This is all very hard to grasp. Surely, differences in kinds of physical things and their dispositions and powers should have physical explanations. There thus seems to be a version of supervenience that entails the doctrine of the dependence of cognitive, sortal, modal and dispositional properties upon physical properties, at least, when the latter includes those of the surrounding environment. But this account of supervenience would be violated by positing the organism and the person are spatially coincident but distinct entities.

The problems of spatial coincidence can be avoided if the person is considered to be the same entity as the organism, and that entity's persistence conditions to be those of the living organism. In other words, 'person' would be a phase sortal and 'organism' a substance sortal. This would mean that personhood would just be a contingent property of an organism. The most popular reason for resisting this identification is the belief that the person can be separated from the organism and the person would cease to exist in scenarios in which the organism survives. But what leads people to believe such things is the concern they have for the being that receives the transplanted cerebrum and the lack of concern they have for the organism whose original cerebrum is removed, destroyed, or even replaced. Once it is recognized that identity is not what matters, the most powerful motivation for distinguishing the person and the organism disappears.

Has the appeal of the PAPI been offset? My hope is that reader has come to realize that the PAPI's treatment of the dicephalus and cerebrum transplant doesn't free it from positing the existence of thinking beings that don't care about themselves or whose thought is split into two

streams of consciousness. In my judgment, that renders the contest a draw. But the BAPI can then reveal its trump card, the problems the PAPI must face by its accepting the existence of spatially coincident entities. I believe that renders the BAPI superior to its competition.[42]

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[1]Parfit, Derek. *Reasons and Persons.* (Oxford: Oxford University Press, 1983) pp. 245-280. See also his "The Unimportance of Identity." ed. Harry Harris *Identity.* (Oxford: Clarendon Press, 1995) pp. 13-45.

[2] See Zimmerman, Dean. "Theories of Masses and Problems of Constitution." *Philosophical Review.* 104 (1995) pp. 55-110. Carter, W.R. "Our Bodies, Our Selves." *Australasian Journal of Philosophy.* 1988 vol. 66 No. 3 pp. 308-319. Olson, Eric. "Material Coincidence and the Indiscernability Problem." *The Philosophical Quarterly.* Vol. 51. No. 204. (2001). *The Human Animal: Identity Without Psychology.* (Oxford: Oxford University Press, 1997).

[3] The probably of spatially coincident thinkers will even arise if the person is considered just a part of the organism. It won't then be the person and the organism that are spatially coincident thinkers, but the person and the brain - or whatever part of the organism is taken to constitute the smaller person. I develop this point in my forthcoming *Theoria* paper entitled "Persons as Proper Parts of Organisms.

[4]The brain transplant thought experiment was first put forth by Sidney Shoemaker in his *Self Knowledge and Self Identity,* (Ithaca: Cornell University Press, 1963), p. 23. It is a materialist twist on Locke's famous account of consciousness swapping between the Prince and the Cobbler. *An Essay Concerning Human Understanding,* ed. Peter Nidditch, (Oxford: Oxford University

Press, 1975), chapter XXVII p. 340.

[5]In the rest of this essay, I will write not of human bodies but only about the human animal or human organism, using the latter pair interchangeably. Although much of the personal identity literature contrasts bodies and persons, I think the idea of a body that can be at one time alive and an organism, and then later dead and no longer an organism, yet still be the same body is impossible. Although I won't defend this preference for organisms over bodies here, it will be the human animal/organism and not the body that is contrasted with psychological accounts of identity.

[6]Some philosophers, such as Michael Tooley, go so far as to say that the radical cerebral rewiring destroys the person even if the capacity for mere sentience remains because it eliminates all of the "biographical self," all the desires, memories and beliefs that distinguish one adult person from another. But other philosophers, e.g., Lockwood, Unger and Salmon, believe they survive as long as there is the capacity for sentience. So neither "rewiring," amnesia, Alzheimer's disease, injury or stroke that reduces one to mental infancy, will be a threat to one's survival. Lockwood, Michael. "When Does a Life Begin?" in *Moral Dilemmas in Modern Medicine.* (Oxford: Oxford University Press, 1985.) Salmon, Nathan. "The Dora and Rita Incidents." Paper presented at the Haifa Conference on Philosophy. Forthcoming in a Kripke Festschrift.

[7]Eric Olson coined the phrases "vegetable intuition" and "coma intuition" as well as "transplant intuition." *The Human Animal: Identity Without Psychology.* (Oxford: Oxford University Press, 1997) p. 39 A permanent vegetative state is distinguished from a coma in that a being in the former has a working brainstem. Some vegetables don't even need a respirator. See Cranford,

Ronald. “The Persistent Vegetative State: The Medical Reality (Getting the Facts Straight.)” *Hastings Center Report*. February-March 1988. pp. 27-32.

[8] Maybe a closest continuer theory could maintain that one survives a vegetative state that arose from injury or illness, but when one’s cerebrum is successfully transplanted, one would not remain behind as the cerebrumless, vegetative organism.

[9]When I mention brain transplants in this chapter, I mean only the transplant of the “upper brain,” the cerebrum, which no sensible commentator thinks is an organism. Matters are more complicated if the whole-brain and brainstem are transplanted. Peter van Inwagen and Eric Olson believe that such a procedure would be the transplanting of the human animal - though a mutilated one. See van Inwagen’s *Material Beings.* (Ithaca: Cornell University Press, 1991) pp. 168-179 and Olson’s *The Human Animal: Identity without Psychology.* Op. cit. pp. 122-124. Nathan Salmon also expressed this view in conversation. Olson and van Inwagen stress that it is the lower brain (the brainstem, in particular) that is essential for the functioning of an organism, and that a detached whole brain and brainstem would meet the conditions for being an animal since there would still be a system that functions as a unit in the manner characteristic of biological entities.

[10]The brain seems less metaphysically significant in those lower animals, such as a squirrel, where the consciousness is minimal. We don’t have as strong a tendency to believe either that the squirrel is transplanted when the physical basis of the minimal mind is, or that the same mammal ceases to exist when it loses consciousness but not autonomous biological functions. I suggest that we extend this “ontological demotion” of consciousness to advanced animals like human

beings.

[11]Wiggins, David. *Sameness and Substance.* (Cambridge: Cambridge University Press, 1980)

[12]There are parallels between prudence and moral responsibility. We wouldn't punish (at least on retributive grounds) an organism that committed a crime but then has its upper brain replaced with a duplicate cerebrum.

[13]Parfit, Derek. *Reasons and Persons.* (Oxford: Oxford University Press, 1983). See also Parfit's "The Unimportance of Identity" in *Identity.* ed. Henry Harris, (Oxford: Clarendon Press, 1995) pp. 13-45. If readers are doubtful that we can draw any lessons from bizarre thought experiments involving brain splitting and hemispheric transplants, perhaps a case of multiple or split personality, what is now called, "Dissociative Identity Disorder," may provide the same lesson but in a more realistic and reliable manner. Imagine that the original personality is shattered rather than preserved and awaiting reintegration or reestablishment as the only person realized by the organism. Instead, two new distinct personalities have emerged, each with an equal amount of psychological contents qualitatively similar to those of the original. The new mental lives are each completely unaware of any experiences and plans of the other. If advocates of the PAPI maintain that unity of consciousness is necessary to individuate persons, then the two personalities belong to different persons. Assume that the original person knew that the two persons would emerge in his wake. What sort of concern would he show to those "descendents?" If readers put themselves in his place, I would expect their reactions to parallel those that Parfit experiences when he contemplates undergoing the brain fissioning scenario. Thus the Parfitian claim that identity is not what matters can be established independently of the more farfetched

transplant thought experiments.

[14] David Lewis's claim that there were two people co-located before the fissioning means that there could be a world just like ours up to the moment of fissioning, but since fissioning doesn't occur there, it would possess only one person where ours contained two. For such a criticism, See John Perry's "Can the Self Divide?" reprinted in his *Identity, Personal Identity and the Self.* (Indianapolis: Hackett Publishers, 2003). pp. 44-45, 62. There also doesn't seem to be any fact which could warrant why one of the two co-located people survives as one rather than the other post-fission person. David Oderberg pursues this line of criticism in his "Coincidence Under a Sortal," *Philosophical Review.* Vol. 105. no. 2. 1996. pp. 145-171.

[15] If objects could survive division as scattered object, then the planet would just contain one scattered amoeba, assuming amoebas didn't evolve independently in different locations.

[16] See John Perry's "Can the Self Divide" reprinted in his *Identity, Personal Identity and the Self.* Indianapolis: Hackett Publishers, 2003) pp. 52.

[17]There is no harm in stipulating that prior to the transplant, our two hemispheres were redundant i.e., each having the same memories and capabilities of the other. This might actually be the case (minus the duplication of memories) with young children for they allegedly have minds of considerable plasticity. If the two hemispheres are extremely asymmetrical, much more mental life realized in one than the other, the reader might tempted to think he survives fissioning as just one of them.

[18]All cases of prudence are also cases of quasi-prudence, but the converse is false.

[19]Parfit. "The Unimportance of Identity." Op. cit. p. 28.

[20]My intuition is different from Parfit's in that I don't believe *any* physical realization of my psychology would do. For a stress on the importance of brain produced consciousness see Salmon's"The Doris and Rita Incidents" and Lockwood's "When Does a Life Begin?" Op. cit.

[21]Even if we lost our capacity for self-consciousness, we would care about the stimulation of the pain and pleasure segments of our cerebral hemispheres.

[22]Parfit. "The Unimportance of Identity." Op. cit. pp. 43-44.

[23]Unger, Peter. *Identity, Consciousness and Value,* (Oxford: Oxford University Press, 1991), p. 268.

[24]Maybe on Parfitian grounds we wouldn't be the same person, but on Salmon, Lockwood and Unger's "physical" criterion of personhood, having the same brain and core psychology (consciousness) guarantees that we would still be the same person nine hundred years later.

[25]One could construct similar hypotheticals and explanations if we were to die and be resurrected nine times.

[26]Unger. *Identity, Consciousness and Value.* Op. cit. pp. 217-223.

[27] There is a problem with Unger's reliance on conventions, but I cannot go into it here. Van Inwagen notes this in his critical study of Unger's book. Van Inwagen. "Unger's 'Identity, Consciousness and Value.'" *Nous*. (1993) pp. 372-379.

[28]If readers believe that the speed of qualitative part replacement is irrelevant to their survival,

Unger's thought experiment could be run with the removed parts being too large to secure survival. They should imagine their entire brain being replaced by two duplicates of each hemisphere. First the entire new left hemisphere is added and then a few seconds later, the right hemisphere is replaced by its duplicate. Readers pondering this are likely to become more sympathetic to the view that there are limits of how much, if not how quickly, one's brain can be replaced if one is to survive the process.

[29]Imagine that 98% of the brain is solely responsible for nonvoluntary biological processes. Its destruction and replacement would ensure the brain had been destroyed and replaced.

[30]Just a reminder, I am using "human animal" and "human organism" interchangeably.

[31]Baker claims that since the organism constitutes the person, it is derivatively a person and thus refers to the person when using first person expressions. It would be too much of a digression to explain here some problems with Baker's constitution solution.

[32] See Jeff McMahan *The Ethics of Killing: Problems at the Margins of Lifwe.* (Oxford: Oxford University Press, 2002) pp. 35-39, 60-61, 87-88. And Ingmar Perssons's "Our Identity and the Separability of Person and Organism." *Dialogue,* (1999) 38, pp. 525-27.

[33] McMahan. Op. cit. p. 39

[34]Locke. *An Essay Concerning Human Understanding*, Op. cit. p. 342.

[35] However, it is possible that our reactions here don't indicate anything about identity. Maybe we fail to mourn not because we think that no persons were destroyed, but because we see them as interlopers. They were where they had no right to be. So it may be the trespassers' lack of

entitlement and the harm they were doing to the rightful owner, not their lack of personhood that was preventing others from lamenting the loss of person(s) when psychiatric medicine restores the original person as the sole occupant. In support of this interpretation of multiple personalities as multiple persons, consider that one of the multiple personalities, when ascendant, had a family, one that loved him even though they saw him only infrequently. They would certainly lament the psychiatric "cure" which eliminated all thoughts and concerns for them. For such reasons, I find it easier to use the dreaming example as my model for explaining away the appeal of the PAPI account of the two-headed organism.

[36] Incidentally, what may be the most compelling of PAPI, the constitution account of Lynn Rudder Baker, cannot easily account for the dicephalus being two people. This is because she insists that constitution is a one to one relationship. There can't be two people constituted by one body/organism. But there are no legitimate biological grounds for claiming that the dicephalus is two organisms which share all the same parts but cerebrums. A cerebrum is not essential for an organism, an organism can exist without being capable of thought, so it is hard to see that an additional cerebrum should produce a second organism.

[37]Perhaps the reader might try to develop other differences between Socrates and the two-headed organism. Maybe there is a sense in which the sleeping and waking Socrates share the acquisition of conceptual resources in a way that the dicephalic twins do not. Perhaps the response of the BAPI could involve a being that learns in its sleep as some people who play cassette tapes at night believe. Then we would have a parallel to each of the two cerebrums acquiring different bits of knowledge that the other lacked.

[38] The need to respond to this possibility was impressed upon me by Anthony O'Hear.

[39] Parfit obviously can do it. But it should be pointed out that he has recently abandoned the view that he is essentially a person. He believes 'person' should be considered a phase sortal. In a volume dedicated to Sydney Shoemaker's work, Parfit writes: "Shoemaker defends a pure version of the Psychological Criterion, according to which some future person would be the same as some present person if and only if these persons would be uniquely psychologically continuous. Though I once defended this criterion, I wouldn't do so now. And Shoemaker assumes that what we are essentially is persons, while I regard it as acceptable to claim wthat what we are essentially is human beings, treating the concept 'person' as a phased-sortal, like 'child' or 'chrysalis,' so that we exist before we become persons and we continue to exist after we cease to be persons." "Experiences, Subjects and Conceptual Schemes." *Philosophical Topics.* Vol. 26, no. 1 & 2 Spring and Fall, 1999, p. 218

[40] This point is stressed by W.R. Carter in his "Do Zygotes Become People?" *Mind.* vol. XCI, (1982) pp. 77-95, and Eric Olson in his *"The Human Animal."* Op. cit. pp. 92-94.

[41] Any historical differences could be offset by creating the person and the organism at the same time in a futuristic lab. So it is the other properties listed in the text above that prevent the organism from being considered identical to the person.

[42] I would like to thank the editor for his comments on an earlier draft.