

The Death of a Person

Introduction

James Bernat's definition of death as "the permanent cessation of the critical functions of the organism as a whole" has been very influential in the medical and legal communities (Bernat, 1998, 17). Bernat believes that a person is essentially alive, thus it survives as long as vital processes continue and dies when the human organism with which it is identical does. In opposition to Bernat are the many philosophers who believe that each of us is essentially a thinking being and so a statement of the conditions for survival must make reference to mental capacities rather than life processes.

I am not going to take a stance on whether we are essentially organisms or not. My thesis is that even if we are not essentially organisms, then, contrary to the claims of Jeff McMahan and Robert Veatch and others, no change in the definition of "death" must be made in order for it to be literally true that we die. Drawing upon Lynne Baker's work (2000), I argue that persons spatially coincident with organisms can die because they derivatively acquire biological properties from the organisms that constitute them.¹ I also argue that there are insufficient grounds to claim that the term "die" when applied to the person must only have a non-biological meaning such as "going out of existence." Philosophers using the word that way should stop, otherwise, somewhat ironically, they can't adequately describe the state of the person who exists but is no longer alive in two of the thought experiments commonly used to

¹ I am using "person" to mean an entity that essentially possesses the capacity for self-consciousness as is common in the Lockean tradition and reinforced by Baker. McMahan and Veatch don't believe self-consciousness is necessary for our survival. Lesser cognitive powers will suffice. The claims made in this paper about persons construed as essentially self-conscious beings that yet still die the same kind of deaths as organisms can easily be extended to the position that we are essentially thinking beings but only contingently self-conscious.

show that persons are not organisms - cerebrum transplants and inorganic part replacement. Another mistake is to infer that different criteria for the deaths of persons and their organisms are required since the timing of their respective demise need not be the same. What are needed are not different criteria for death but only distinct criteria for ceasing to exist. When persons cease to exist, it will simply follow that they no longer engage in the biological functions required by the single criterion of death.

II. Two Alleged Senses of “Death”

“Death,” Bernat insists, “is univocal.... that is, we refer to the same concept and phenomenon when we describe the death of a dog that we do when we describe the death of a human being” (Bernat, 1998, 15). Persons are each identical to an organism and they die when that organism dies. Bernat insists that if one speaks of a person dying before the organism dies, that is not a literal use of “death” (Bernat, 1998, 15). He explains:

Death like life always has been fundamentally a biological function. Use of the word “death” or “die” outside of the strict biological context is acceptable but is metaphorical ... Thus only living organisms can die...the concept of death is only applicable to an organism because death is fundamentally a biological phenomenon. By contrast personhood is a psychosocial or spiritual concept. Personhood may be lost, such as, according to some, in a patient in a permanent state of unconsciousness, but persons (sic) cannot die except metaphorically...(Bernat, 1998, 15-16).

Bernat’s target isn’t just those who think that there exists a death of an essentially self-conscious person that is distinct from that of the human organism. He is

no more sympathetic to claims like Veatch's that we are creatures whose deaths occur when we lose the capacity for mere consciousness rather than self-consciousness (Bernat, 1998, 15). Veatch explains his view:

“Death is the irreversible loss of that which is essentially significant to the nature of humans. Death...is not in any sense a biological statement of cessation of cellular respiration or functioning, as the term might be used in referring to the death of a plant or nonhuman animal...When we speak of human death, we mean something radically different....we may well find it more plausible to opt for a concept focusing on the irreversible loss of the capacity for experience...rather than the irreversible loss of integrating capacity of the body...” (Veatch, 2000, 87, 94).

Bernat believes that Veatch's account is flawed not only because it denies that the “death” is univocal, but it fails to capture the lay person's sense of the term which any formal attempt to define “death” should do. As evidence of the latter failure, Bernat points out that Veatch's account would construe as dead thousands of patients in permanent vegetative states (PVS) and other forms of permanent unconsciousness. Bernat adds that Veatch's definition would give rise to practical problems such as burying the dead PVS patient who was spontaneously breathing (Bernat, 1998, 17). He claims that stopping this breathing before burial implies we don't really think the individual is dead.

Veatch's account can't explain what kind of creature remains if you and I were to go out of existence with the onset of a PVS. McMahan believes that his own approach can do so while avoiding Bernat's error of identifying each of us with an organism that could enter and

linger in a PVS (McMahan, 2002, 423-43;1995, 91-124). McMahan insists that the person is just a part of the organism.² In the reader's chair are two distinct beings that can each die different kinds of deaths. He believes this avoids Veatch's dilemma of having to declare that an individual in a PVS is dead. The entity in the PVS will be the still living organism of which the deceased person had been a part.

McMahan maintains that since we are distinct from our organism there is a need for two concepts of "death" and two concepts of "life" (McMahan, 2002, 423-26). He insists: "To say a *person* is alive is just to say that she exists" (McMahan, 2002, 425). No reference to the continuation of life processes is needed. Likewise, the death of the person need not involve cessation of vital functions of biological integration. McMahan finds evidence for a non-biological conception of death in the Bible. He explains:

When Jesus says that "Whosoever liveth and believeth in me shall never die," he doesn't mean that some human organisms will remain functionally integrated forever. He means that believers will never cease to exist (McMahan, 2005,2-3).

However, there may be no need for two senses of "death" for it may be that Jesus is speaking metaphorically.³ If the claim that believers shall never die literally

² For problems with McMahan's view, see Hershenov's 2005.

³ Another reason to be skeptical of the support McMahan finds for his interpretation of "death" in the words of Jesus is due to the fact that Christians believe in the death and later resurrection of a living body. So perhaps Jesus' claim that believers shall never die should be interpreted as stating that their death won't be *permanent* rather than that they will never cease to exist. McMahan's analysis will not cohere well with the standard interpretation of the hylomorphic conception of the human being as a soul/matter composite when it is applied to the case of someone blown to bits. Such a person has not only died but ceased to exist. He does not exist again until the miracle of Resurrection when his soul reconfigures matter in a way suitable for life.

means that that they will never cease to exist, the implicature is that nonbelievers would cease to exist. But traditional Christianity has those rejecting Jesus going to Hell rather than Heaven, not forever ceasing to exist. So it doesn't appear that anyone would pass permanently out of existence if McMahan's interpretation of Jesus' use of "die" were correct and thus there would have been no point in Jesus making his statement about believers. So perhaps we shouldn't *here* put too much weight on the literal interpretation of Jesus' words.

However, I don't want to declare that there couldn't be a non-biological sense of "death" and "life." As Donald Davidson points out, metaphors can die and become literal. His example is that mention of the mouth of rivers and bottles no longer brings to mind a living creature's mouths. (1985, 252) So perhaps when the Bible speaks of the "Living God" it is not metaphorical but just literally means the "Existing God." So I am open to the possibility that "death" and "life" have non-biological meanings as well as biological ones but recommend we change our usage and remove the ambiguity to avoid confusions that will be discussed at the end of this paper. Furthermore, admitting that such terms can be ambiguous won't prevent me from maintaining my thesis that persons which aren't identical to organisms can still literally die biological deaths - pace Bernat, McMahan and others - even if there is still another sense of "death" that applies to them.⁴

The reader may be left thinking that if there is only a single meaning of "die" and 'alive,' or if we change any practice to the contrary and start to use such terms only in the biological sense, then wouldn't Bernat be correct to assume that I must be applying the term in

⁴ For an account that even biological uses of "death" are ambiguous, see Shewmon, 2004.

a metaphorical sense to persons? Otherwise, how could a univocal conception of “death” apply to both those that are essentially alive (organisms) and those that aren’t (persons)? I maintain that I can avoid the metaphorical use by drawing upon Lynne Baker’s account of constitution in which people are constituted by organisms and thus are contingently and derivatively organisms. That will enable me to speak of a person’s “death” in the exact same sense that the term is used in biological discussions of the event that is the organism’s death - the transition from dying to decaying in Bernat’s language (Bernat, 1998, 16). Before outlining how the constituted person can die a derivative biological death, the concepts of “constitution” and “derivative property” must be clarified.

III. The Constituted Person

Explanations of constitution frequently begin with the example of the statue and the lump of clay said to constitute it. The lump and statue are in the same place at the same time (i.e. spatially coincident), and composed of the same atoms and physical particles. Every atom in the statue is also in the clay. Despite being physically no different, it is maintained that they are distinct entities. The lump could have existed before the statue came into existence. It wasn’t until the sculptor came along and molded the lump into say the shape of a famous politician that the statue came into existence. And the statue might be destroyed if it loses too much of its shape but the lump would persist through that change. However, if the statue has its hand replaced by a hand composed of a different type of material or just different clay, the statue would survive the “repairs” but the original lump of clay would not. There would then be a different lump constituting the statue. So for such reasons it is argued that the statue and the lump of clay are distinct.

The lump is said to constitute the statue rather than vice versa because it could exist without having given rise to the statue (or anything else). That is, if it wasn't in the right circumstances, intentionally molded by the sculptor and displayed, then the statue would never have come into existence. The constituted entity in our example, the statue, can't exist without being constituted. But that statue, as we have seen in the case of the hand replacement, need not always be constituted by the same entity. (Baker, 2002, 43-5).

Baker claims that when one entity is constituting or constituted by another, each can *borrow* properties from the other. The entity which borrows a property has it *derivatively*, the other has it *nonderderivatively*. The constituted entity can have properties nonderivatively if the object constituting it couldn't have those same properties without constituting it. For example, the statue is nonderivatively beautiful and valuable while the lump wouldn't possess such properties if it didn't constitute the statue. So the lump is beautiful and valuable derivatively. The constituting entity, on the other hand, could have a property nonderivatively if it could possess that property even when it didn't constitute another object. For example, the lump of clay nonderivatively possesses the property of weighing two thousand pounds. It would have that weight if it had never been shaped by the sculptor. And if the constituted entity (the statue) has a property that the constituting entity (the lump) could have without constituting anything, then the former has it derivatively. The *statue's* possession of weight is an example of such a derivative property. There are two things, the statue and the lump, but they don't each weigh a separate ton forcing the scale to register four thousand pounds when the clay statue is placed upon it. The lump and the statue share the same weight. They possess the same token property of weighing two thousand pounds.

Lest the reader think I am engaging in special pleading on the part of the constitution relation, let me point out that something similar is true for certain overlapping objects that do not stand in a constitution relation to each other. Consider embedded entities such as someone's elbow and arm. When the elbow acquires a bruise, the arm obtains one and the same bruise. There aren't two bruises, one in the embedded elbow and the other in the embedding arm. Instead there are just two things with the same particular bruise. The single property token of being bruised is shared by the elbow and the arm.⁵

Baker believes that the constitution relation between persons and bodies is analogous to that of statues and lumps. A person is distinguished by her capacity for self-consciousness, what Baker calls the "first-person perspective."⁶ Possession of such a perspective entails a consciousness of oneself as a being with beliefs and desires. Baker believes that you and I are essentially persons. The organism that constitutes a person doesn't have the property of personhood essentially (and nonderivatively). It can exist without being self-conscious. When the organism was an embryo it was not a person. Yet in certain circumstances, the organism

⁵ This conclusion can't be avoided by denying that there are really two independent things when one is embedded in the other. It seems possible for my identical twin and I to undergo an elbow swap. My bruised elbow is exchanged for his unblemished elbow. The capacity of the elbow to exist independently of the arm it is originally embedded in suggests that the elbow is a real thing, a real part of the arm, unlike say the lower 1/3 of my arm. That alleged spatial part couldn't be separated from my arm and thus is for that reason perhaps not a real part. Such spatial parts fail an independence test for their reality. For even if my arm was partially amputated, the lower one third would still exist, it would just consist of different segments of bones, tissue and flesh etc.

⁶ The existence of a constitution relation between organisms and us will be unaffected if we are essentially sentient beings and only contingently self-conscious.

constitutes a person. When a person emerges, it is not a phase of the organism but a substance in its own right.⁷

Baker maintains that when the organism constitutes the person there do not arise two fully separate thinking beings, each with its own mind and mental properties that are duplicates of the other's. Both the organism and person have the same mind and share the same desire and belief properties. It is just that one of them will have certain of these properties derivatively and the other will have those same properties nonderivatively. Baker argues that the organism is also a person when it comes to constitute the person. But this doesn't mean that there are two persons in the same place, one essentially a person and the other contingently. There is only one person. The property of personhood is derivatively possessed by the organism while held nonderivatively by the being which is essentially a person. Baker protests that those who think that there are two persons are conceiving of the constituting organism and the constituted person as if they were fully separate entities that just happen to be in the same place at the same time. Such a perspective overlooks the intimate relationship that a constituted object has to that which constitutes it. There is more to constitution than just spatial coincidence, i.e., being in the same place at the same time. While constitution is not identity, it is not full separateness either. Baker insists that when one thing constitutes the other that makes it possible for two things with different essences, such as an organism and a person, to each be contingently the same as the other. But they are not identical. The organism derivatively acquires the property of being a person from the person who is nonderivatively and essentially a person; and the person derivatively acquires the property of being an organism from the entity that is nonderivatively

⁷ There can be persons that aren't constituted by organisms. We will consider persons constituted by silicon or some other inorganic material later. And God would be a person that is not constituted by anything.

and essentially an organism. So according to Baker, to claim that two things are the same is to say either they are in a constitution relation like the person and the organism or that they are strictly identical like Samuel Clemens and Mark Twain (Baker, 2000, 174).

There are likely to be points in the above discussion that some readers will contest. But I can't devote this paper to defending Baker and still pursue the implications of her view for the definition and criterion for death. I'll just assume that she has resolved the problems that she has tackled, or can with further tinkering, thus permitting me to move on and explore in the next section how a person that is not identical to an organism can still die a biological death and do so without ceasing to exist.

IV. Derivative Deaths

If the person is constituted by an organism, then that person is derivatively alive and can die. It sometimes happens that a person dies without life processes slowing down, ceasing, and then a corpse appearing. The absence of both a dying process and a corpse when a person loses the capacity for consciousness and dies may be responsible for the belief that persons can't die unless "death" is interpreted as "ceasing to exist." I think this is a mistake. To help readers see this, we'll first look at the fissioning of amoebas because such one-cell creatures have also been misrepresented as living entities that go out of existence without dying.⁸ It is erroneous to maintain that if something dies a biological death then it must leave a corpse. If the living one-cell amoeba didn't die when it divided, then that entails that it is either still alive or, at best, in an indeterminate state of neither being determinately alive nor determinately dead. Since it is admitted that amoebas cease to exist when they divide, it sounds absurd to say that they are not also dead. Likewise, when a person ceases to exist because of cerebral damage that leaves the spatially coincident

⁸ McMahan asserts that amoebas don't die (2002, 425). Leon Kass makes a similar claim (1997, 22).

organism still alive, the correct judgment is that the person has died even though vital organs such as the lungs, heart, liver, spleen and brainstem have not failed and no corpse has been produced. There was a living person, he ceased to exist, a fortiori, he is no longer alive. If someone is no longer alive, then that person is dead. If someone is dead, then that person has died, even if that event took place in the blink of an eye. It might help to consider that someone instantly vaporized by a nuclear explosion did not undergo anything resembling a dying process and there would obviously be no corpse; nevertheless, we would certainly say of the unfortunate person that not only does he no longer exist but that he died in the explosion.

What might be bothering the reader is the claim that a person could die when the very organism constituting him doesn't. If the property of being alive is derivatively borrowed from the organism, how then could there be the death of the person at one time and then the death of the organism at a much later time? According to the tenets sketched in the previous section, there should be only one life property that two entities share, just as there is only a single ton of weight that the lump and statue share. This worry can be removed if the reader comes to appreciate that when the person ceases to share its matter with the organism, it ceases to borrow its properties and processes. With spatially coincident entities, there are not two "lives" but one shared life, one shared metabolic process, one shared homeostatic system possessed derivatively by one object and nonderivatively by the other. Since the organism constitutes the person, it is not the case that a property inheres in one object and then there is a second property possessed by the other in the way that the reader has the property of being alive and I have that property as well. The same type of property can have different tokens (instances), one in you and another in me. In the case of constitution, there is but one token of a type of property shared by two entities.

Still, the reader may not accept my claim that the death of the person involves the same processes as the death of the organism. Such a reader might think that since the person ceases to exist when certain parts of the upper brain are destroyed but the organism can survive the loss of those brain parts, then the death of the organism and the death of the person can't involve the same loss of biological life processes.⁹ But this is not the case. We need to distinguish biological processes essential to life from biological events that may cause those processes to stop. While I admit that the destruction of cells in the person's cerebrum can play a causal role in the human person's death without causing the human organism's demise, that doesn't mean the loss of different life processes are involved in the death of the person than the death of the organism. The only difference is in what are the (more distant) causes that bring it about that the person goes out of existence and dies, and not in the nature, definition and criterion of the death.

We can see more clearly that the destruction of cerebral brain cells should not be part of the definition or criterion of the person's death by imagining the case of a cerebrum transplant. The person's upper brain (cerebrum) will be removed from his body and then later put in the cerebrumless body of an identical twin. When the person's cerebrum is removed from the body, machines take over and do what the brainstem, lungs and heart did, thus enabling the cerebrum to continue to be able to give rise to thought and for the person to continue to exist – though in much smaller form. In the interim period, i.e., the time after the person has left its original body behind but has not yet obtained the new body of its identical twin, the person would still exist but would have ceased to be alive since it doesn't engage in life processes in the absence of a living body. The person when constituted by an organism was alive because the constituting

⁹ This was a challenge issued by an anonymous reviewer.

organism was alive. The person's life was a result of it derivatively possessing the properties of the organism that enable it to metabolize food, assimilate oxygen, excrete waste, maintain homeostasis etc. It is the borrowing of these properties from the organism that constituted it that rendered the person alive. The person would cease to derive those properties from the organism when it ceased to be constituted by it and would then no longer be alive.

The person in the transplant scenario is constituted by the detached cerebrum and able to think because of the still intact and functioning brain cells (and the mechanical apparatus) though it is no longer alive. So the lesson is that persons can die without undergoing any upper brain cell death. However, if enough of the brain cells of the removed cerebrum were later destroyed, then the small, bodiless, cerebrum-sized person would cease to exist but the cellular destruction wouldn't be the *death* of the person because the person had already died when it earlier lost its organic body. The loss of the cells in the upper brain caused the pared down, bodiless person to cease to *exist* but not to die. Life had already left it at the first moment it was no longer constituted by an organism and derivatively borrowing, in Bernat's language, the critical functions of the organism as a whole.¹⁰ So while the continued functioning of brain cells may be required for keeping persons with organic brains in existence, the destruction of such cells is not a *necessary* aspect of the process of a person's death. Therefore, the destruction of cells in the upper brain shouldn't be part of the meaning or criterion of the death of a person and thus the reader should accept the earlier claim that the death of the person and organism involve the same processes.

¹⁰ The organism back in the operating room is alive but in a persistent vegetative state since its cerebrum has been removed.

V. Persisting Through Death

If death in the case of a person means just that he ceases to exist, then there would be no biologically plausible way to explain what happens to the person's life processes during two thought experiments commonly used to establish that the person is not the organism. The first is the brain transplant thought experiment which involves someone's cerebrum being removed and placed in the cerebrumless skull of an identical twin. None of the cerebrum's capacities have been lost. Since the person during the transplant is constituted only by the cerebrum and not the organism, it has then ceased to be derivatively alive without ceasing to exist. So if "die" means "cease to exist" when said of a person, then we cannot accurately explain what transpires in the transplant scenario.

It might be charged that personhood is realized in more than just the cerebrum.¹¹ The brainstem is needed for there to be any conscious life. So the transplant of just the cerebrum is insufficient to transplant a person. My response is that the brainstem is not needed in the same way as the cerebrum to preserve identity. The brainstem is more like the power source for the computer. Different electrical outlets and batteries can all serve equally well so we won't say the computer and its files aren't the same as a result of a change in power source. The cerebrum is special in that the person's biography and capacity for rational thought is realized there. Surgeons poking around in someone's cerebrum can elicit memories or desires but nothing comparable occurs with probing the brainstem. If a person's cerebrum is rewired, it would completely change his mental life. The brainstem makes a very different kind of contribution to our mentality. It is more of an all or nothing contribution to consciousness. We need a brainstem to be conscious but a mechanical surrogate would do since what is distinctive about our mental life seems to be

¹¹ I am here indebted to an anonymous reader whose questions made me add the response in the text.

realized in the upper brain. If one replaced the cerebrum with a duplicate it seems as if the resulting person would also be a duplicate.

However, even if personhood depends upon other brain structures than just the cerebrum, my main point about persons but not organisms being transplanted can still go through.¹²

Additional brain structures can be transplanted with the person's cerebrum and the person still won't be alive but will exist during the transplant procedure when the cerebrum and those attached structures have been removed from one body and not yet put in another. As long as the transplanted parts of the brain aren't sufficient to compose a pared down organism, then the person could be transplanted and separated from the organism left behind or destroyed. Some philosophers, like van Inwagen (1990, 172-81) and Olson (1997, 44-46, 132-34), think a whole brain transplant is the transplant of a very small organism because the controls of vital biological processes are there in the brainstem even if they are not attached to any organs that they can control. So to avoid this threat of a pared down organism being transplanted thus undermining the claim of person/organism nonidentity, we must imagine that if parts of the brainstem are transplanted with the cerebrum, only the capacities of the brainstem necessary for thought remain intact while those structures required for integration of the bodily life processes are irreparably damaged and thus lost.

The other thought experiment involves the person's organic parts being replaced with functionally equivalent inorganic matter. The person ceases to be composed of cells and other organic parts. Since the thought experiment assumes that the person's mental capacities have not been altered, there is a strong intuitive pull to declare that the person survives the

¹² An anonymous reviewer points out that autism studies show defects in cerebellum as well and the reticular formation in the brainstem is responsible for awareness.

procedure. Support for this speculative conclusion is drawn from the actual fact that throughout the life of an organic person all the cells except those of the brain are replaced, and even those brain cells eventually come to be composed of entirely new atoms. This complete natural change in material composition doesn't lead us to believe that the person has been replaced. I suspect the basis for our belief in the person's persistence is the presence of the *same* cognitive functions. If the person can survive such organic part replacement in the regular course of events, then there is reason to believe that he would survive the acquisition of inorganic parts if they too were functionally equivalent to their predecessors. If readers find it is too farfetched to imagine that our cognitive capacities could be unchanged if we ceased to have a brain composed of neurons, a less extensive part replacement can be used to make the same point. Imagine that while the person's natural cerebrum and some other parts of the brain like the cerebellum are left unchanged, so many of the person's vital organ systems are replaced by inorganic substitutes that there is no longer an organism present. But if we imagine that the organic cerebrum and other brain structures doesn't cease to realize consciousness when the work of the heart, lungs, kidneys, stomach, liver etc. are accomplished by mechanical substitutes, the person would apparently continue to exist though without any longer being alive. Therefore, if "death" when applied to persons just means ceasing to exist, the persistence of the lifeless mostly inorganic person cannot be adequately expressed.¹³

¹³ Someone might argue that "death" is ambiguous in that the *person* could die in either sense – loss of life or cessation of existence. That would enable one to say without contradiction that the person died but still existed. But it would be very confusing for then it would be true that Smith died (biologically) and didn't die (go out of existence.)

Some readers might protest that full inorganic part replacement is not possible because too much of what we are – our emotions and even ability to think clearly – is tied up to overall interactions of the nervous system. I disagree with such readers.¹⁴ I don't think enough is known enough about what inorganic materials are possible to make such a negative claim. These readers need to be able to say not only aren't there such materials, but there could not possibly be any such materials. That is, they must be committed to it being metaphysically impossible for us to survive inorganic part replacement. My position is, that for all we know, there could very well be some materials that duplicate our inorganic capacities. And I don't see any reason why there couldn't *possibly* be such materials even if they don't *actually* exist. I do admit that it seems plausible that things with different physical properties have to manifest some different physical causal powers, so inorganic parts wouldn't be perfect causal duplicates of organic parts. But what causal differences there are between the two physically different things realizing our thought need not have to affect cognition or don't have to do so in a way that would lead us to doubt that identity has been preserved. We survive immense changes in emotions due to hormonal changes that occur between the time we are infants and senior citizens so it is possible that a slight change due to replacement with inorganic parts wouldn't be identity threatening. And all I need for my argument to go through is that enough organic matter is lost that so there aren't any grounds for claiming an organism is present any longer. We could also imagine that the cerebrum remains and the organic chemicals needed to preserve our cognitive and affective life are provided by medical interventions rather than an organic body.

¹⁴ One such reader is an anonymous reviewer. I am indebted to that person for making me respond in the text.

So I think such readers should at most be agnostic about the possibility of inorganic structures preserving our emotional and cognitive life. And against such a background, all I need to do is then show that our beliefs about ourselves are such that if there were such inorganic materials that could preserve our thought, we would survive the part replacement without any longer being alive. So even if, unbeknownst to us, there are in fact no such materials and there couldn't be any such that would preserve our identity through a change in composition, given what we do have grounds to think *now*, our reactions to such thought experiments in which cognition and emotion have remained qualitatively the same (or nearly so) show that we are more committed to the belief that we aren't essentially organisms than are. So it seems that at the present time there is more reason to maintain that it is possible for us to survive inorganic part replacement than not.

VI. The Criterion for the Death of a Person

McMahan suggests that not only do we need two definitions of "death," but two criteria as well.¹⁵ Persons die in the sense of ceasing to exist when they have lost the capacity for thought. When the upper brain (cerebrum) is destroyed, thought is no longer possible, and this provides the criterion for the person's death. I disagree. There is no more of a need for the person to have a criterion of death distinct from that of the organism than there is for two definitions of "death." While it is a very understandable mistake to claim that an upper brain criterion is appropriate for the death of a person since the person's going out of existence entails his death, what is actually needed is just a different criterion for persons passing out of *existence* than organisms doing so. Persons cease to exist when the organ of thought - or more

¹⁵ A definition gives us the meaning of "death" while the criterion provides necessary and sufficient conditions that indicate that death has occurred.

precisely, the parts that make self-consciousness possible - are destroyed. So the onset of an irreversible coma or permanent vegetative state would mean that the person has ceased to exist. And when persons go out of existence, they cease to be alive. They no longer exist, a fortiori, they no longer instantiate life processes. Thus the criterion of death for organisms does not need to be altered to apply to persons that are derivatively alive. The cessation of whichever vital organ systems indicate that the criterion of death has been met for an organism can be extended to persons. The criterion could be cardio-respiratory cessation or whole brain and brainstem failure. It doesn't matter for the purposes of this article. When a person ceases to exist, whatever criterion is chosen for death will have been met. It is the criterion for our ceasing to *exist* that is really interesting since whatever it is will entail that the criterion for the person's death has been met.

VII. Conclusion

We have seen that if persons are derivatively alive, then they can die. Their deaths involve the same loss of biological processes that occur in the death of organisms. Thus we can allow that we're not essentially organisms and yet can still die without having to admit that there are two concepts and criteria of death as McMahan and Veatch do. Furthermore, Bernat can defend his definition of death without having to insist that persons are organisms or that persons can only die metaphorical deaths.¹⁶

¹⁶ I would like to thank two anonymous reviewers for extremely helpful comments.

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