**Why Psychological Accounts of Personal Identity Can**

**Accept a Brain Death Criterion and Biological Definition of Death**

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**Abstract**: Psychological Accounts of Personal Identity claim that the human person is not identical to the human animal. Advocates of such accounts maintain that the definition of death and the criterion of death for a human person should differ from that for a human animal. My contention is instead that Psychological Accounts of Personal Identity should have human persons dying deaths defined biologically, just as are the deaths of human animals. Moreover, if brain death is the correct criterion for the death of a human animal, then it is also the correct criterion for the death of a human person. What the non-identity of persons and animals requires is only distinct criteria for ceasing to exist.

**Key words:** Death, Non-Existence, Definition, Criterion, Persons, Animals

*“To say that a person is alive is just to say that she exists…The term ‘death’ can refer to our ceasing to exist or it can refer to a biological event in the history of an organism…. An organism dies in the biological sense when it loses the capacity for integrated functioning…but if we aren’t organisms, this is of little consequence…what’s important is when we die in the nonbiological sense – that is, when we cease to exist… we persons die or cease to exist when we lose the capacity for consciousness …the best criterion for when this happens is the higher brain criterion.”-* JeffMcMahan - “An Alternative to Brain Death.”

*“The word ‘life’ may refer to a person’s life or an organism’s life. Since a human organism exists before it constitutes a person, the life of the organism is not identical to the life of any person. ….Persons have first-person perspectives essentially:...we can think of ourselves from the first person point of view; we can reflect on our thoughts – our motives, ours desires, our beliefs, our actions... hence a person dies with the irreversible loss of the first-person perspective…So medically speaking, there are criteria that distinguish between the death of a person and the death of an organism that constitutes a person – namely, permanent cessation of higher brain function and cessation of all brain function.”* Lynne Baker - “When Do Persons Begin and End”

“*We have argued, following other personal identity theorists, that a given person ceases to exist with the destruction of whatever processes there are which normally underlie the person’s psychological continuity and connectedness….these processes are essentially neurological, so that irreversible cessation of upper-brain functioning constitutes the death of that person…whole brain death is also death for persons, but only because the whole-brain death is partly comprised of upper-brain death…the death of persons, unlike that of bodies, consists in their ceasing to exist.”* Wikler and Green - “Brain Death and Personal Identity.”

*Introduction*

I understand Psychological Accounts of Personal Identity (hereafter PAPI) to be committed to the thesis that people have essentially psychological properties or capacities and don’t possess essentially the biological properties constitutive of life.[[1]](#footnote-1) The above three quotes are taken from prominent advocates of PAPI. The order of the quotes involves each demanding more psychological capacities than the previous to conclude that a person is alive – mere consciousness, self-consciousness, and psychological continuity and connectedness. Those quoted maintain that the definition and criterion of death for our animal isn’t applicable to our person.[[2]](#footnote-2) They believe that PAPI reveal that we need to make two additions to our account of death. First, we must add a *definition* of death for persons. It should capture the sense in which the death of a person consists of someone going out of existence rather than dying a biological death. So if biological death is defined in terms of a loss of bodily integration or functioning as whole, a person’s death will not make reference to such a loss of integration or functioning but will consist of the person going out of existence. The person’s death is compatible with the possibility of their body continuing to function in the biological manner constitutive of life. Second, such advocates of PAPI insist that we need to add a *criterion* for the death of a person, namely the cessation of the upper brain’s production of thought. That criterion provides the necessary and sufficient conditions for the definition of death (of the person) to apply. The three main competitors for the criterion of death are the traditional circulatory/respiratory theory [9], the now prevalent whole-brain death criterion [10], and the upper brain criterion favored by the philosophers quoted above.

My thesis is that PAPI don’t require that human persons and human animals have different definitions and criteria for death. PAPI should have persons dying deaths defined biologically. If advocates of PAPI accept say Bernat, Gert, and Culver’s definition of the death of the human animal as *the* *irreversible loss of functioning of the organism as a whole* [10], then that definition should also be applied to the human person distinct from but overlapping the organism. If brain death is the appropriate criterion for the death of human animals, then that is also the correct criterion for the death of the human persons. What is needed is only a second criterion for ceasing to exist, one for the human animal and another for the overlapping but non-identical human person.

*Death as Ceasing to Instantiate Life Processes*

The living are alive in virtue of their bodies engaging in metabolism, homeostasis, and other vital life processes. The living cease to be alive when such processes no longer occur in their bodies. Their bodies will then fail to be functionally integrated in the manner characteristic of the living. So biological death involves ceasing to instantiate life processes. Understanding death at this level of abstraction is rather uncontroversial. The living are distinguished from the dead in virtue of the presence of life processes (or capacities). If a person shares a body with a living animal, then that person dies when life processes are extinguished in that body. The momentary cessation of life processes won’t constitute death unless and until such cessation is irreversible. Readers are invited to add their favored conception of “irreversible” to the cessation of life processes. It may be that death occurs when the laws of science make it physically impossible to restart life processes; or it may be that death takes place when there is no existing technology capable of restarting life processes; or it could be that death arrives when the body can’t auto-resuscitate, i.e., can’t restart life processes without external interventions [11].[[3]](#footnote-3) Readers may also add their favored conception of how life processes are integrated. It may be that the brain is a central integrator, at least after birth.[[4]](#footnote-4) It may be that integration doesn’t need the brain as a master part orchestrating the process. I will proceed as if the established criterion, whole brain death, is the correct criterion for death. However, my thesis can accept a view of integration that favors the circulatory/respiration criterion and a definition of death that qualifies “irreversibly” in different ways.

The nature of a person’s death will depend upon the nature of the person. One very well-known account of the person is provided by constitution theory. Lynne Baker offers the most sophisticated account of constitution [17], holding that a person is constituted by an animal (body/organism) but is not identical to that animal (body/animal).[[5]](#footnote-5) The constitution relationship is typically illustrated with the lump of clay that constitutes a statue. The statue and the lump are atom for atom the same but distinct because they differ in their properties and typically their histories. The lump typically existed before the sculptor shaped it in such a way that a statue emerged. The lump could survive the loss of its shape, the statue could not. The animal (organism/body) and the person, in this theory, are structurally similar to the lump and statue. The animal typically existed before the person who emerged with the onset of certain mental features. The animal could survive the loss of those mental features while the person could not.

The constituted statue and the constituting lump each have certain properties derivatively because the other has them non-derivatively. For example, the lump may be beautiful or valuable derivatively because the statue is beautiful and valuable non-derivatively. The lump would not have those properties if it wasn’t in a constitution relationship, hence it possesses them derivatively. The statue derivatively has the mass that it does because the lump non-derivatively has that mass. The lump would have that mass even if it didn’t constitute the statue, hence it possesses its property of mass non-derivatively. Something similar follows for the mental properties of the person constituted by the animal body. The constituting animal might think derivatively about the meaninglessness of life, because the constituted person is doing so non-derivatively. The person might suffer disease derivatively because her animal is doing so non-derivatively. So the person who is derivatively alive will die derivatively when she ceases to instantiate life processes that her animal instantiates non-derivatively.

Baker isn’t the only prominent constitution theorist. Another well-known constitution theorist, Sydney Shoemaker, rejects Baker’s “derivative relational properties” but nevertheless writes that persons “Plainly are animals… Persons breathe, eat, digest food, excrete wastes, and in countless other ways do what animals characteristically do…have hearts, livers, etc…So a person is an animal with psychological persistence conditions”[[6]](#footnote-6) [18]. Shoemaker’s persons are embodied and instantiate life processes - digesting, metabolizing, excreting, maintaining homeostasis etc. Therefore they die when they cease to instantiate vital life processes.

John Locke is the father of PAPI.[[7]](#footnote-7) Lockean persons have living bodies. Locke writes of the person: “The limbs of his body are to everyone a part of himself… our very bodies are parts of ourselves” and “any part of our bodies, vitally united to that which is conscious in us, makes a part of ourselves” [20, ch. 27, sec. 11]. So Lockean persons will possess vital organs as parts, the functioning of which will be constitutive of life. Lockean persons will be alive in virtue of having living bodies. Ergo, Lockean persons will die when their bodies cease to instantiate life processes.[[8]](#footnote-8)

I contend that the PAPI canvassed so far do not require a second criterion for death. Since persons cease to instantiate life processes and thus die biological deaths, there is no need for an upper-brain criterion of death since their death, like the animal’s, involves the loss of biological integration accomplished by the brain.[[9]](#footnote-9) Likewise, for the definition of “death.” Persons die biological deaths. If one believes that Bernat, Gert and Culver are correct that the death of the organism is best defined as the “the permanent cessation of the organism as a whole”[[10]](#footnote-10) [10] then that definition should also apply to the person who overlaps the human organism.

Since both the human person and the human animal are alive in virtue of instantiating life processes, the criterion for their death will be the same. A single criterion for death provides necessary and sufficient conditions for the death, i.e., the irreversible loss of life processes, of both the person and their animal. There will be a need, however, for two criteria of non-existence. While the properties that must be lost for a living person or animal to die are the same, the attributes that they must respectively lose in order to go out of existence are not the same. The person goes out of existence when its capacity for thought is lost. The human animal goes out of existence when its body disintegrates.[[11]](#footnote-11)

Since the conditions for going out of existence are not the same for the human person and the human animal, there is a need for two criteria of non-existence. But that doesn’t mean that there are two senses (meanings or definitions)[[12]](#footnote-12) of “non-existence.” Neither the term “existence” nor the prefix “non” are ambiguous. The meanings of “existence” and “non-existence” do not change when the object is either a person or an animal (or an artifact or natural inanimate object).

It may be helpful to take stock of the previous claims. There is only one sense of “non-existence” – a position shared by virtually all philosophers. My first controversial claim is that there is a need for only one sense of “death” that applies to both human persons and human animals. My second controversial claim is that there is a need for only one criterion of death for human persons and human animals. I concede, however, that there is a need for different criteria of non-existence for human animals and human persons. My next controversial claim is that embodied, living human persons always die a biologically defined death when they go out of existence.

Let’s turn now to the question when and why human persons and human animals cease to *exist*: If just the animal’s mental capacity is lost, then the animal can exist after the person ceases, as psychology is essential only for the person. So animals can survive the onset of a persistent vegetative state (PVS) or permanent coma, whereas persons cannot. But the person could remain in existence longer than the animal in the famous thought experiment involving the person’s cerebrum being transplanted into the near empty skull of another human organism and the body that earlier housed it being destroyed. This is interpreted as showing that a human person can switch bodies and thus is distinct from its animal which cannot be separated from its body. In another famous personal identity thought experiments in which the person undergoes inorganic part replacements, the animal will cease to exist before the person, as sameness of living body is essential only for animals. The inorganic part replacement thought experiment is hypothesized as involving the person retaining mental functions despite becoming composed of a very different kind of matter. So the animal dies when its organic body is lost and replaced by silicon parts that don’t instantiate life processes, but which continue to sustain the person’s psychology. Defenders of inorganic part replacement being compatible with the person’s persistence insist that if a person can undergo normal turnover in organic brain matter, and yet retain the same identity preserving mental capabilities, memories, desires, intentions, etc., then persons should continue to exist if the acquisition of inorganic parts maintains their earlier organically realized psychology.

Now let’s turn to the issue of when and why persons and animals *die*. Given our present technology, persons die before or when the animal dies as the life processes of the person will cease when their essential mental capacities are extinguished. So the onset of a persistent vegetative state will kill the person. In the two well-known personal identity thought experiments, the person never dies *after* their animal dies.[[13]](#footnote-13) Persons die when their bodies become inorganic or when they are reduced to the size of the cerebrum, because it is then that they cease to instantiate life processes. Imagine all of the body destroyed but the cerebrum, the person reduced from six feet and two hundred pounds to just a few inches and pounds. Even if that organ is alive, the person’s original life ceased. If we assume that organs are alive, a view that I will reject later, the life of the cerebrum still isn’t the same as the life of the earlier full-sized person. The latter life ended when the person ceased to have the organism’s body and life processes. This is comparable to a ten day old multicellular embryo having all but one cell destroyed. The multicellular embryo doesn’t become a single cell embryo. The remaining single cell already existed and its life processes were earlier distinct from that of the multicellular embryo and so the life of the embryo doesn’t become reduced to that of the single cell.[[14]](#footnote-14)

Let’s finally turn to the relationship between nonexistence and death. If human persons cease to exist when they lose their essential psychological properties, they also die then as they cease to instantiate life processes. What else could death be but ceasing to instantiate life processes? Embodied human persons thus die biological deaths even if they aren’t identical to living animals. Persons certainly don’t cease to exist yet remain alive. This alternative would have it that the living person ceases to exist when the capacity for thought is lost but is still alive. It is absurd to claim that someone has ceased to exist and yet is still alive. And it seems almost as strange to claim that living persons cease to exist but are then to be described as being neither dead nor alive. If the living have ceased to exist, then they have irreversibly ceased to instantiate life processes, i.e., they are not only no longer alive, but they are dead. If the living person is not identical to the living animal, then an event like the onset of a PVS will cause the person to cease to exist and thus die, even though its organism remains in existence and alive.

*Two Reasons Why Persons Ceasing to Exist seems not to Involve their Biological Deaths*

Why do so many theorists resist the idea that persons always die biological deaths? I think a reason why this mistake is so widespread is due to there being, on occasion, neither a typical dying process nor corpse to be found. It is often held that certain entities, even living ones, can go out of existence without dying - e.g. fissioning out of existence when an amoeba divides or an early embryo twins. Jeff McMahan writes:

It makes perfect sense to say that when a unicellular organism, such as an amoeba, undergoes binary fission, it ceases to exist, but in the biological sense it doesn’t die. There’s no cessation of functioning that turns a once-living organism into a corpse.[[15]](#footnote-15) [28]

I would first like to point out a different account of cellular division where a death occurs regardless of whether there is one or two or no successors. Olson offers the following account of cell division that involves death:

…while the plans (the chromosomes) are being copied, the flow of chemically coded instructions to the rest of the cell is interrupted and its enzyme systems must function without renewal. The nucleus splits into two and the cells’ organelles arrange themselves symmetrically on an internal axis, the biological event that we might call the cell’s life loses its integrity and divides into two independent streams. It seems appropriate to call that the birth of two new organisms and the *demise* of the original cell.[[16]](#footnote-16) [3]

So the cell dies before it is apparent whether there will be one or two or no successors to it. Pace McMahan’s quoted comment, there is indeed a “cessation of functioning”, there is just no corpse as typically the two descendants have each incorporated half of the remains of their living predecessor. But if we imagine neither descendant cell surviving fission, the result being a pair of one cell “stillbirths,” we would have a corpse, or at least scattered remains.[[17]](#footnote-17) There is no reason to treat “successful” fission differently from “unsuccessful” fission when determining whether the pre-fission organism died. In both cases there is a death. There is the death of the original single cell organism when fission is successful and two living descendants are produced, and there is the death of the original cell when fissioning doesn’t produce any living descendent cells. Life processes have irreversibly ceased to be instantiated in both scenarios.

It might help readers appreciate the possibility of a corpse-less death if they imagine someone instantaneously annihilated without a trace by an angry God or pulverized by a nuclear device. In both scenarios there is no corpse or typical dying process. But the person surely didn’t cease to exist and remain alive or cease to exist and become neither alive nor dead.

To appreciate the absurdity of the view that I am arguing against, imagine that a soldier is disintegrated by a thermonuclear device. The army chaplain approaches the soldier’s home and his mom runs out and asks: “Is my son dead?” The chaplain says “The good news is that he is not dead.” Her face lights up with relief and joy. But then the chaplain continues: “The bad news is that he no longer exists.”

I suspect that the most compelling reason that readers may have for resisting my claim that human persons who are distinct from human animals still die biological deaths is that the human animal can instantiate the same life processes before and after the person’s death. This provides a stronger claim than fission offers for understanding persons not to be dying biological deaths, because a human animal who was alive before the person’s putative death can still be alive after that alleged death event. The presence of the person’s human animal instantiating life processes before *and* after the person ceases to exist leads one to naturally say that the person did not die. While the original amoeba’s living body is no more after fission, the person’s living body continues when the person ceases with the onset of a persistent vegetative state.

To help readers resist the intuitive appeal of describing some cases of the living going out of existence as their doing so without dying, consider that two objects can instantiate the same processes and properties. Imagine a bruise on your right elbow and thus also on your right arm. That is one bruise instantiated in two entities. If readers balk at there being but one bruise shared by two entities, they won’t be able to draw the line at two bruises. For if there are two bruises, there’s actually more. There would be a third bruise on your right side, a fourth on your torso, a fifth on your body etc. So to avoid an explosion of bruises, it is more plausible to claim two or more entities instantiating one and the same bruise.

If your finger is bruised, so are you. You have the same bruise. If every part of your body but your finger was destroyed, then neither you nor your body would still exist reduced to the size of your finger. So you don’t exist anymore and *a fortiori* are not instantiating any bruises. But your bruised finger still exists. Something analogous is true when your person ceases to exist due to the onset of a PVS, but your animal continues to exist. My suspicion is that people are easily misled when there are two overlapping (part sharing) entities and one but not the other ceases to exist and instantiate a shared property. The source of the error in the personal identity scenario is that two distinct but overlapping beings, a human person and a human animal, are instantiating the same biological property of life. When that property of being alive ceases to be instantiated in the person because the person is destroyed, the continued presence of the living animal mistakenly leads people to believe that the person didn’t die. However, just as the bruise you shared with your finger can survive your destruction, the life processes that your person shared with your animal can survive your person’s destruction. The posthumous presence of your bruised finger is no reason to deny that you, the person, were earlier bruised and have ceased to be so. Likewise, the posthumous presence of life processes in your animal is no reason to deny that you earlier instantiated such life processes and have ceased to do so.

*The Costs of Equivocating about ‘Death’*

I have argued that embodied, living persons always die when they cease to exist. Failing to recognize this point will have some unwelcome consequences. First, real deaths, the loss of life-instantiating processes, will not be registered when persons cease to exist due to the loss of mental capacity. This is an error in ontology. Genuine biological deaths are occurring that are not being captured by accounts that claim that the deaths of persons aren’t biological deaths. Philosophers like McMahan and Baker, who understand the death of the person to mean just that someone goes out of existence, fail to see that this going out of existence involves the person ceasing to instantiate life processes and thus undergoing a biological death.

To follow Baker and McMahan and employ two senses or definitions of “death,” one for persons and one for organisms, also means that we can’t recognize that the person has died but hasn’t ceased to exist in the two thought experiments. The cerebrum transplant and inorganic part replacement thought experiments, the *bread and butter* of PAPI, involve living beings ceasing to instantiate life processes. Insisting that persons can’t die biological deaths results in inaccurate descriptions as the person has gone from being alive to no longer alive without ceasing to exist. That is a cost if it is maintained that persons can only cease to exist, but can’t die biological deaths. If the death of a person means going out existence, then a death that doesn’t extinguish the person can’t be accommodated. That is, persons in the thought experiments will die, i.e., cease to instantiate life processes, without going out of existence. “Death” defined as just ceasing to exist won’t capture the biological deaths of the entities that continue to exist posthumously in the two thought experiments.

Allowing instead that the same person dies in both senses - death1 as ceasing to exist and death2 ceasing to instantiate life processes - will have the confusing consequence that persons will die two simultaneous deaths or two consecutive deaths. The simultaneous deaths will be the person ceasing to instantiate life processes and ceasing to exist when, for example, they’re blown up. The staggered dying twice will occur in the thought experiments when the cerebrum is removed and then soon afterwards dropped and destroyed.[[18]](#footnote-18) The person will have died a biological death when the person is so reduced in size that it no longer can instantiate life processes. Then the person dies a second death according to the second sense of death as ceasing to exist when the impact destroys its capacity to produce consciousness. The two deaths can be avoided if we restrict “death” to meaning the loss of life processes and drop the second sense of “death” as ceasing to exist.

I think introducing a second sense of “death” will make lay people suspicious that the equivocation is introduced to coopt the significance of “death” understood in the traditional sense of ceasing to instantiate life processes. Death is final and we begin important death behaviors upon its determination [32]. Since the biological/medical paradigm is organism death, PAPI will seem to be illicitly borrowing talk of death which will be resisted given the presence of life processes in Grandma’s *body* in the Intensive Care Unit. Admittedly, my reformulation that has persons die biological deaths when they go out of existence despite their animal remaining alive and instantiating life processes means the whole-brain criterion and tests won’t be diagnostically useful in determining the *person’s* death at bedside, because the human organism’s brainstem will be working after the person dies. The person shared the brain of the animal and so we can’t expect the still functioning animal brainstem to indicate the death of the person. It is just that the person ceased to instantiate the brainstem’s properties and functions. However, my account does allow the bedside claim that *Grandma’s* life processes have ceased. It follows from Grandma (the person, not the animal) ceasing to exist that she can’t any longer instantiate life processes. Doctors and philosophers can say to those skeptical of the account of death offered by PAPI that Grandma has stopped breathing, her brain is no longer controlling her respiration and heart rate, i.e., she is no longer integrating life processes etc.[[19]](#footnote-19) This just follows from Grandma ceasing to exist and dying. Since she doesn’t exist, she no longer has a brain that modulates her respiration and heart rate, even though the brain that once did so for her person continues to do so for her organism.[[20]](#footnote-20)

Uriah Burke [33] points out a further problem if there are two types of death. Too many things will be able to die. Shoes can go out of existence but surely they don’t die. So if the defenders of PAPI introduce a second sense of “death,” they owe us an account that tells us which of the many things that can go out of existence can also die. They must qualify and restrict the second sense of “death” to perhaps thinking beings. So “to die” won’t literally mean “a being goes out of existence” but will mean that “a *thinking* being goes out of existence.” That might have to be qualified further if readers resist describing artificial intelligence (AI) robots as having died when their capacities for thought are “deleted.” So it might be that only thinkers who overlap and share parts with organisms will go out of existence in a way that counts as dying.

We will see in the next section that matters get even more complicated if one possesses a soul which enables one to posthumously exist. Death then can’t be defined as going out of existence if the ensouled continue to exist in Hell, Purgatory, Heaven, or, as in portrayals of popular culture, hover near the living.

*Animals as Parts of Persons and Persons as Parts of Animals*

There are so-called Compound Dualists like Richard Swinburne [34] who view persons as body/soul composites. The body is literally a part of the person.[[21]](#footnote-21) On this view, animals are parts of persons. Having a living material part (body) and an immaterial part (soul) means a person dies when the body dies as the ensouled person then ceases to instantiates life processes.

It is quite tricky to determine when properties of parts are also properties of the whole. Sometimes to ascribe the properties of the parts to the whole will be an informal fallacy of composition. If your kidney weighs so many ounces, you don’t. However, if your body is your *maximal* material part, then it seems safe to ascribe many of its material properties to you. I don’t know what the general principle is to avoid the fallacy of composition but I suspect that if your maximal physical part has certain physical properties like weighing 200 lbs. and being alive, then you have those as well for you have no other physical properties instantiated in a part external to your 200 lb. living body. So if your body dies, then you–the soul/body composite who has no other physical properties than those of your body–have also died. But unlike your body’s material properties, you have temporal properties that are not exhausted by your body’s temporal properties so it wouldn’t be accurate to say that since your body has no future after its destruction, that you have no such future. Thus if your body dies, you die. But you don’t cease to exist due to your retaining your soul as your only part.[[22]](#footnote-22)

There is one psychological approach to personal identity that understands persons as proper parts of animals. McMahan [37], and the later Parfit [38] argue that persons are roughly brain-size.[[23]](#footnote-23) Their motivation is that persons consist of just those parts that are directly involved in the production of thought. They stress that such little persons avoid many of Olson’s [3] animalist critique of the spatially coincident person and animal both being thinkers. Since McMahan and Parfit’s brain-size persons don’t share the living animal’s body, they aren’t alive in a biological sense. Thus such small persons can’t die biological deaths, only cease to exist. However, if organs such as the brain are alive and do die, then such small people will die as well as go out of existence.

I think that there are good reasons to deny that organs and tissues literally die. It is best to paraphrase such talk by saying that organs and tissues have living cells and that if too many of their cells die that will prevent them from accomplishing certain functions. This form of paraphrase avoids two different senses of life ending with death. Cells and organs are alive in the same way. They are independent, self-maintaining, metabolizing, living entities that satisfy the same definition of life. But organs and tissue are not alive in the same manner as individual cells and multicellular organisms. The parts of organs and tissues are not coordinated in the way that keeps that organ or tissue as a whole alive [3, p. 130]. An organism is “a complex macromolecular system that behaves as a unit and is capable of replication through a conversion of material and energies gathered from its environment, through a self-controlled interact or boundary” [41, p. 61]. Organs and tissues, even when detached and sustained by equipment, are unlike the reader’s *organism* in that they don’t behave as a unit and don’t have a unified boundary. Unlike organisms, they don’t grow themselves or maintain themselves. They get any of their teleological properties from the roles as parts in an organism.

The individual cells of an organ are alive and can die. They metabolize, grow, and operate as a separate unit. Multi-cellular organisms that have organs as parts are alive and can die. But organs and tissues cannot die. Organs and tissues are not literally alive and any account of death of a tissue culture or some tissues, for example, in my thigh will be rather unprincipled. Does the tissue still live when all but one of its constituent cells have died? It would be odd that a tissue still was alive when only the smallest fraction of its cells were. The tissue couldn’t become reduced in size to the one cell as things can’t become identical to their parts. Would the tissue die in degrees as more and more of its cells die? That sounds absurd. Once we extend life beyond the cells of a tissue to the tissue itself, its lack of integration and self-maintenance characteristic of cells and organisms brings puzzles best avoided by denying that the multicellular tissues and organs are alive. It suffices to say that deaths of too many of their living cells will render them dysfunctional and ultimately eliminate them.

*Pure Dualism and the Death of the Soul?*

Pure dualists maintain that we are identical to our soul rather than a compound of soul and body. Souls don’t die. Even if pure dualists [42, 43][[24]](#footnote-24) are right and we persons are souls without bodies as proper parts, a second sense of death isn’t needed. The soul can’t die as it isn’t alive. The death of someone who is just a soul should be paraphrased as really describing the death of their body and not literally their own death.

Nevertheless, if readers insist that it is too revisionary to declare that fully immaterial persons who are identical to their souls don’t die, then death can’t mean persons cease to exist (as maintained by McMahan, Wikler and Green in the opening quotes) as the immaterial persons posthumously exist. How then should we define death of a soul? Well, first I want to caution readers against defining an ensouled person’s death as a soul ceasing to be related to its body. This makes death a relation between the person’s soul and body. If the person as conceived by the pure dualist could truly die, then death can’t be defined as the soul merely ceasing to be related to a body for the loss of such body/soul integration would make two souls undergoing body swaps into a form of death. Think of Locke’s description of soul swaps or their occurrence in popular movies like *Freaky Friday* with Jamie Lee Curtis’s soul going into the body of her teenage daughter and vice versa. Such soul swaps satisfy the definition of death as the soul ceasing to be related to its body. But this is surely not the popular conception of death.

Soul death would have to be defined as the cessation of a *relation* to a body that was instantiating life processes and no longer does. So death for such a soul would have to be defined as the soul ceasing to interact with a body when the body dies. Defining “death” in terms of bodily death wouldn’t be circular as there are two senses of “death.” But it would be unwelcome as it invites an equivocation in the very definition of a person’s death. If we go down this route, then we will be stuck with three senses of “death.” Not only would there now be a death in the first sense of the soul departing and a death in the second sense of the animal body dying, but there would also perhaps be a third sense of death as nonexistence if the soul is destroyed.[[25]](#footnote-25)

*Conclusion*

Persons whose body parts are parts of their person (as theorized by Shoemaker, Baker, Locke, Wikler and Green etc.) can die biologically defined deaths that meet the whole-brain death criterion. Surprisingly, the same is true for persons construed as a compound of soul and body. So if ensouled persons can die without going out of existence, this provides us with further reason not to define a person’s death as their going out of existence rather than the cessation of life processes. Thus persons who overlap their bodies (i.e., share parts) don’t need a second definition or criterion for death. Complications and confusion arise if they are introduced. Only a second criterion for non-existence is required. Since I have argued that organs are not literally alive, unlike cells and organisms, they can’t literally die and so a new criterion of death is not even needed for embodied mind theorists like McMahan and Parfit who posit brain-size persons. I have also argued that souls don’t die though they can cease to be related to bodies when the latter die. But if readers insist that immaterial human persons as conceived by pure dualists do die, then the definition of death will only need to be tweaked to include a relation of the person to the cessation of the functions of the organism as *a whole.*[[26]](#footnote-26) However, that brings an unwelcome ambiguity of death and so is best avoided.

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1. I am not a defender of any psychological account of personal identity. My own view is what Patrick Toner calls “Latter Day Animalism” [1]. Peter van Inwagen [2] and Eric Olson [3, 4] are the most prominent Latter Day Animalists. The original animalists are Aristotle and Aquinas. All animalists identify us with human animals. Aristotle and Aquinas work within a hylomorphic metaphysic that characterizes us as essentially rational animals. Van Inwagen and Olson don’t insist upon the human animal being essentially rational as psychological traits are contingent features of human animals. The non-essentiality of the mental is evident in the title of Olson’s seminal work: *The Human Animal: Identity without Psychology* [3]. [↑](#footnote-ref-1)
2. It is worth pointing out that the second [5] and third [6]quoted views don’t actually support the upper brain criterion for death, understanding a criterion to be necessary and sufficient conditions. Baker’s first-person perspective is roughly the idea of being self-conscious and that can be lost before the upper brain is destroyed [4, 7]. Green and Wikler believe that you cease to exist with the loss of psychological continuity but that can occur before thought is extinguished and the upper brain is destroyed [6]Furthermore, they accept that one can be destroyed by what John Perry calls a ‘brain zap’ [8]. The zap removes one’s psychology but leaves the brain disposed to acquire new memories and beliefs and so doesn’t require the destruction of the upper brain. Thus Baker, Wikler and Green seem to only be providing a defense of the destruction of the upper brain as a *sufficient* condition, not a *necessary* condition for your death. In fact, Baker probably doesn’t even provide a sufficient condition as she argues that we are not animals since we could survive the replacement of our organic parts with inorganic parts that preserve the same beliefs, desires, memories and other mental functions. Our animal would cease to exist when its living cells were replaced with inorganic, non-living parts, but our person would persist through those material changes because our mental functioning continued. [↑](#footnote-ref-2)
3. See Lizza [12] for an overview of other versions of irreversibility – technological, moral, probabilistic, and metaphysical. [↑](#footnote-ref-3)
4. See Condic [13] for the central integrating role of the placenta prior to birth. See Moschella (14-15], Hoffman and Rosenkrantz [16] for the requirement of a “master part” doing the integration. [↑](#footnote-ref-4)
5. When discussing human beings or human persons in this chapter, I will use “body,” “animal,” and “organism,” interchangeably. So any mention of the person’s “animal” can be replaced with the person’s “organism” or the person’s “body.” [↑](#footnote-ref-5)
6. Persistence conditions are, as the name suggests, the conditions that must be met for an entity to continue to persist (exist). An animal with psychological persistence conditions persists as long it retains certain mental features. An animal that has biological persistence conditions will persist as long as its life processes continue. [↑](#footnote-ref-6)
7. Whitehead famously said that the history of European philosophy was a series of footnotes to Plato. Noonan [19, p. 24) claimed it could be said with even more justice that the history of the philosophy of personal identity were footnotes to Locke. [↑](#footnote-ref-7)
8. Peter Geach wrote that “one could read the identity chapter of the Essay like a mail order catalogue from one could get whatever one wants.” Perhaps he had in mind a Lockean interpretation the approach that that construes persons as modes rather than substances. See Edmund Law [21, pp. 199-200]. This Lockean interpretation doesn’t fit my thesis that persons die biologically and that is one If you were just modes, series of mental events, something like an instantiated program, then you aren’t a material thing, flesh and blood, and thus can’t die a biological death. [↑](#footnote-ref-8)
9. As I said above, Even if the brain isn’t the central integrator constitutive of life, my thesis can be adapted to a circulatory/respiratory criterion. For what it is worth, I was personally persuaded over a decade ago by Shewmon [11] that the brain merely regulated an existing integrated organism. But recent work by Moschella [14-15] and especially Condic [13] have weakened my support of Shewmon’s critique of the brain death criterion. I can be more accurately described as fence sitter on the issue of the correct criterion for death. My confidence is only in the claim that the same criterion for death applies to persons and the animals that can outlive them. [↑](#footnote-ref-9)
10. In more recent years, Bernat has modified the definition to “the permanent cessation of the *critical functions* of the organism as a whole.”[22]. [↑](#footnote-ref-10)
11. Philosophers are divided about what constitutes the body’s disintegration and thus the end of its existence. So-called “Terminators” [2, 3, 23] believe that the existence-eliminating disintegration occurs when the animal dies and massive chemical changes occur at the microscopic level despite the fresh corpse appearing similar to the ante-mortem body. The so-called “Anti-Terminators” [24, 25, 26] maintain that the body ceases to exist sometime after death when there is considerable decay and loss of structure. [↑](#footnote-ref-11)
12. I will be using “sense”, “meaning”, and “definition” as synonyms even though there could be words that have a sense or meaning but not a definition because they expresses primitive concepts that resist decomposition into any smaller semantic components. [↑](#footnote-ref-12)
13. If one thought that biological integration could be lost but there would still be a few moments with just “flickers of thoughts”, then the person could exist after the death of the organism outside of sci-fi and religious scenarios. See Chiong [27] for a brief discussion of the presence of thought post biological integration. He doesn’t conclude, as the advocate of the PAPI would do, that persons can survive their organism, only that such organisms are not dead if there is still thought after the loss of bodily integration. I think Chiong is wrong to claim the organism would survive for a few more seconds producing thought post integration. That strikes me as hardly any more plausible than saying that the bird who dies midair is still producing flight until it hits the grounds. However, I don’t have the time and space to pursue this here. [↑](#footnote-ref-13)
14. I’m assuming that the single cell is not totipotent and so couldn’t give rise to a multicellular organisms to avoid further complications with my example. [↑](#footnote-ref-14)
15. Kass, [29, p. 22] makes a similar point about fission not being death. See also David Shoemaker’s remarks [30]. [↑](#footnote-ref-15)
16. Van Inwagen makes similar claim (2, pp. 150-51). [↑](#footnote-ref-16)
17. See Rose Hershenov and Derek Doroski [31] for accounts of fetal fusion where a dead embryo is incorporated into its living twin. We may never see a corpse but there was a death. [↑](#footnote-ref-17)
18. The person will also die two deaths in the Chiong scenario discussed in note 13. [↑](#footnote-ref-18)
19. While I don’t expect this paper will be abridged and turned into a brochure to be given out to relatives in persistent vegetative states or irreversible comas, still, it allows the PAPI to say that grandma has ceased to do all the things i.e., instantiate life processes, that the skeptics of upper brain death insist are constitutive of life. [↑](#footnote-ref-19)
20. Remember, I am using “body,” “animal,” and “organism” interchangeably. [↑](#footnote-ref-20)
21. The language of *pure dualism* and *compound dualism* is borrowed from Olson [35]. [↑](#footnote-ref-21)
22. So-called “survivalist” accounts of hylomorphism will reach the same conclusion as compound dualists. See Rose Hershenov and David Hershenov [36, pp. 225-29]. [↑](#footnote-ref-22)
23. Hudson [39] and Dowland [40] also defended the embodied mind view that persons are found beneath the skin composed of the parts of the central nervous system directly involved with the production of thought. [↑](#footnote-ref-23)
24. Olson claims that Descartes is read both ways but more often read as pure dualist [35]. [↑](#footnote-ref-24)
25. There is a minority Christian tradition that posits the annihilation of some souls rather than their suffering for an eternity in Hell. [↑](#footnote-ref-25)
26. Thanks to audiences at Georgetown University and the Plato’s Academy, North Tonwanda Campus (PANTC) workshop. [↑](#footnote-ref-26)