

Evaluating Hylomorphism as a Hybrid Account of Personal Identity

David B. Hershenov
University at Buffalo

Quaestiones Disputatae Vol. 10, Issue 2, 2020

I. Introduction

Psychological accounts of personal identity have been widely considered superior to biological accounts of personal identity on the basis of their being more attuned to our practical concerns.¹

Locke understood *person* to be a “forensic term, appropriating actions and their merit; and so belongs only to intelligent agents, capable of law, and happiness and misery” (1975, 346).

Persons are creatures that can self-consciously pursue a prudent path and be held responsible for their actions. The typical responses to the famous brain transplant and consciousness transfer thought experiments are alleged to show that we are identical to the being with whom we have practical concerns as the result of sustained psychological ties. The person with our brain, mind, soul, or psychology after the hypothetical transfer/transplant is the entity that we ought to have prudential concern for and should be praised or blamed for actions done before the procedure.

Such responses are interpreted as indicating that it is our psychology, which is essential to us, not our biological life processes, which are retained by an animal left behind in an unconscious state after its skull has been emptied of mental states.

¹ Psychological accounts of personal identity maintain that our nature is that of a thinking being, and we persist as long as some psychological capacity or contents continue. One could say with considerable justification that such approaches are all footnotes to Locke. The biological account of identity considers thought to be a contingent feature. Our nature is that of a living being, and our persistence conditions are determined by the continued presence of life processes or capacities.

More than anyone else, Eric Olson has made the psychological approach to personal identity appear less attractive as he drew our attention to the problem of too many thinkers that arises if we assume the person and the animal are distinct entities (1997, 2003, 2007). Overlapping the person would be an animal that uses the same brain as the person to think. Olson stresses the resulting epistemological puzzles as neither the animal nor the person would have a reason that the other lacked to believe she is the person or the animal.² Another problem confronting psychological approaches to personal identity is explaining why physically indistinguishable entities would have different natures and persistence conditions (Olson 2004). David Hershenov and Adam Taylor have argued that there will still be practical dilemmas even if these metaphysical differences are satisfactorily explained and the epistemic puzzles resolved (2017). There would be times that the animal and person couldn't both autonomously pursue their interests, which would diverge due to their different persistence conditions. These practical problems as well as the metaphysical and epistemological puzzles can all be avoided by identifying the person and the animal, leaving just one thinker in the reader's chair.

Unfortunately, identifying persons with animals while assuming that their persistence conditions consist of just the continuation of the organism's autonomic life processes means that we are not moved when our psychology is via brain or consciousness transfers. However, advocates of hybrid theories of personal identity have claimed to be able to render compatible our being animals and the transplant intuition (Langford 2014; Madden 2016).³ Distinguishing hybrid theories from animalist and psychological accounts of identity is their providing cluster or disjunctive persistence conditions in which a person/animal will exist as long as either biological life processes or psychological mental processes continue.⁴ Therefore, we were once mindless

2 Noonan responded that this problem can be mitigated by a strategy called "pronoun revisionism," where the animal and the person both refer with the first-person pronoun to the person, the being with the psychological persistence conditions (2003, 2012).

3 McDowell (1977) Wiggins (2001) have been interpreted as advocating hybrid theories. Madden says Wiggins's attitude has varied over the years from positive to neutral to negative and back to neutral (2016, 2). Olson (2015) refers to McDowell and Wiggins's remarks as "dark statements that sound a bit like it [the Hybrid account]. It might be possible to read Schechtman (2014) as a hybrid theorist, as she claims to reconcile our existing as mindless embryos and vegetative adults with the possibility that we could be transplanted if the crucial part of the brain was moved.

4 Olson refers to the hybrid theory as the "new animalism" (2015). I will refer to the new animalism of Langford

embryos and could become mindless adults if our cerebra are destroyed. But if our bodies were destroyed while our cerebra are undamaged and preserved in a vat or transplanted into an empty skull, we would be found wherever the cerebrum realizing our psychology is located.

Alas, the hybrid account is bad metaphysics parenting bad biology. One reason to avoid hybrid views is that they involve organisms popping in and out of existence merely due to the removal or acquisition of an organ, the cerebrum. Since animals and persons are not collocated but identical on the hybrid account, moving a cerebrum and the person/animal would mean a new mindless animal pops into existence consisting of the matter that had constituted the cerebrum complement before the transplant. Moreover, this means that the mindless recipient of the cerebrum will pop out of existence, otherwise there would be two animals/persons collocated there. It is bad biology to maintain that people can be created and destroyed that way, as cerebra are not organs essential to life processes. There are other reasons to reject the hybrid view, the most important being it is a dubious metaphysic, as it violates the rationale behind the only a and b rule that there shouldn't be causally unexplained existences. Hybrid accounts maintain that the original animal comes to exist in a mindless state if its cerebrum is removed in a manner that destroys it but a new mindless animal suddenly emerges where the original animal ~~is~~ was if the cerebrum is removed and continues to function. The original animal is *causally* related in the same way to a mindless animal composed of the same matter in both cases, but the continued operation of the removed cerebrum *noncausally* precludes the identity of the original and the mindless animal in the second scenario.

The hylomorphic understanding of us as rational animals could be construed in a hybrid manner in which we could persist if we actualized either animal life or rational thought. The presence of rational thought in a transplanted cerebrum, despite the absence of life processes in an organ-sized thinker, could be taken as evidence that the person's soul remains embodied and the person has moved. Moreover, the presence of the hylomorphic soul avoids running afoul of the only a and b rule in transplant/fission scenarios. The soul provides a crucial mereological

and Madden as the "hybrid account" and contrast that with the "animalism" championed by Olson and van Inwagen, whom Toner (2014) describes as champions of "latter-day animalism." Toner labels Aristotle and Aquinas as the proponents of "original animalism." I will just refer to Aristotle and Aquinas's accounts as "hylomorphism." I will, on occasion, distinguish a hybrid construal of hylomorphism from a nonhybrid hylomorphic account but do so with qualifiers rather than introduce new names for the two strands.

difference in the two cases, where there is an unthinking organism as the original human animal's soul is absent in the mindless when the cerebrum is transplanted but present when the cerebrum has been destroyed. The traditional Thomistic account of multiple ensoulments and delayed hominization could take some of the sting off entities popping in and out of existence with organ transplants, since it provides independent motivation for such a peculiar biology and is morally less distasteful, as the human animal/person transplanted into mindless matter is not fatally displacing another rational animal/person. However, most advocates ofhylomorphism reject delayed hominization, and so a transplant, on the hybrid construal, would be the movement of one human animal/person and the destruction of the recipient who was a human animal/person in a vegetative state. Hylomorphic theorists can avoid such a bizarre ethical consequence as well as the dubious biology by denying the transplant intuition and insisting that the human animal stays behind and the comatose recipient of the cerebrum has her thought restored. But there are tendencies in hylomorphic thought—most notably the survivalist account of the disembodied posthumous human animal in purgatory capable of thought without a metabolizing body—that support the intuition that the person is transplanted when the thought-producing but bodiless cerebrum is. Alternatively, this might provide some pressure upon hylomorphists to reject the survivalist account.

II. Soulless Hybrid Views—Langford and Madden

Hybrid theorists can accept the previous criticisms that animalists level against psychological accounts of personal identity due to the latter's refusal to identify human persons and human animals. However, unlike the animalist, they announce that they don't have to abandon and explain away certain practical intuitions about transplanting brains and relocating minds. The appeal of biological and psychological accounts can be combined into one unified hybrid theory. So to our rescue comes the hybrid theorist defending disjunctive persistence conditions where either psychology or biology is sufficient for our persistence and neither is necessary for us to continue (Langford; Madden 2015, 2016, 2017). This appears to give us the best of both worlds.⁵ The problem with biological and psychological accounts is that the former insists that life

⁵ Readers may already be disjunctivists about ship persistence, allowing boats to survive their planks being reassembled at one time and replaced at another time (Langford 2014, 359).

processes are essential, while the latter claims psychological conditions are required for persistence. The hybrid view will allow not only that one was once a mindless embryonic animal but also that the animal won't later become spatially coincident with a person with the onset of thought (Olson, 2008) and suffer the epistemic or practical problems mentioned previously. Moreover, if one's animal body is later destroyed while its functioning cerebrum is preserved in a vat, one persists in virtue of their continued psychology (Langford, 358).

Langford (360) and Madden (2015, 2016) both rely heavily on Wiggin's (2001) idea that there is a "principle of activity" that invokes characteristic functions of different kinds of substances. Where animalists emphasize only autonomic life processes, like metabolism and homeostasis, the hybrid theorists consider the psychological features characteristic of animals to also be ontologically significant. There are differences between hybrid theorists, but some of these might be more of semantic than metaphysical significance. Langford claims that human beings who become cerebrum-size persons or inorganic persons are no longer human beings. Langford seems to be using "human being" as Olson uses "human animal" (Langford, 360, 361, 363). However, unlike Olson, Langford believes *human animal* to be a phase sortal—which ascribes traits to us that we can cease to instantiate without going out of existence—like *adolescent* and *bachelor*. Madden would claim the substance sortal that applies to us is *human animal* but would insist that we are still animals when reduced to cerebrum size during transplant or floating in the philosopher's vat. He points out that animals are traditionally distinguished from plants in virtue of motion and sentience and that the cerebrum-size thinker still instantiates the latter characteristic animal trait. He considers it an unfortunate and mistaken "tendency in the contemporary debate to suppose the distinction between 'biological' and 'psychological' capacities is an exclusive one" (2016, 6–7). Madden criticizes animalists who characterize animals in terms of particles caught up in mindless life processes. He contends that this is a bias of reductionists like van Inwagen and Olson who emphasize the *special composition question* of what the Xs must do to compose a Y. Such an emphasis will lead to mereological puzzles and the elimination of objects that will be recognized by Madden's preferred "nomological conception" of ordinary objects (2015, 2016).

Langford considers our substance sortal to be "biopsychic continuer." He not only breaks with animalists in his treating *human animal* and *human organism* as phase sortals but differs from neo-Lockeans in regarding *person* as a phase sortal. However, he does accept van Inwagen

and Olson's description of essential animal and organism traits to be the autonomic mindless ones, such as metabolism and homeostasis. Thus he considers the detached cerebrum to be a person but not a human animal or human being. He insists that the reader, in whom animality and personhood are now both present, will continue if either does. But not any disjunct of a logically possible disjunction would suffice for our persistence. When Lot's wife turned to look back at the biblical Sodom, she didn't come to persist as a pillar of salt. Since she didn't earlier possess a salt-based composition, life processes, and mentality, the loss of the latter two brought her demise rather than an identity preserving change. "Woman-Pillar isn't a substance concept" (Langford, 361). Langford recommends that "we introduce a new concept when and only when there is continuity of an object's principle of activity but no recognized ultimate sortal to cover it" (364). Oddly, natural kinds terms like *human animal* or *human being* won't be substance sortals as the transplant intuition reveals there is a need to introduce a new substance sortal for us—biopsychic continuer.

III. Doubts about Dominance

But what if the sufficient conditions are separated when a cerebrum is removed and the resulting cerebrumless body is kept alive but a bodiless cerebrum continues to think? The original individual can't be identical to both on pain of violating the transitivity of identity, as they are not identical to each other. What is needed is a condition of dominance—a closest continuer criterion (Nozick 1981)—that favors some features over others when determining which candidate is identical to the original. Madden claims psychology dominates autonomous life processes because there are more characteristically human psychological operations than mindless biological activities (2016, 7). He invites the reader just to compare the number and diversity of human animal characteristics involved with the animal's breathing that are controlled lower in the central nervous system to the cerebrum's thinking. The latter swamps the former with operations such as grammatical string detection, social hierarchy navigation, facial recognition, practical know-how, predictive naïve physics, storytelling, episodic memory, and so on (2016, 7). Thus when the human animal/person's capacities for thought are physically realized apart from the capacities for autonomic life processes, the original human animal is found with the psychology instantiating cerebrum, not the living but mindless organism missing a cerebrum.

I suspect that the greater quantity of psychological capacities is not capturing the source of the appeal of the transplant intuition but is just an unwitting rationalization for the significance imputed to a unified mind. There won't clearly be psychological dominance if we imagine the transplant of a very unsophisticated human mind due to damage or developmental immaturity. Still, most readers would assume that the subject of experience has moved with the minimally sentient human mind, but it wouldn't dominate the metabolic and homeostatic capacities left behind and controlled by the brain stem. Likewise, if a pet dog and cat had their cerebrums transplanted, that would transplant the pet to a new canine or feline body.

My contention is that driving the transplant intuition isn't quantity of characteristic capacities but is the importance of psychological unity to our practical concerns. We can't easily imagine having a different psychology after a brain swap and prudentially caring about the subject of that psychology. Such concerns with psychological unity are already driving responses to dicephalic conjoined twins, like the Hensels, who have two heads sharing the body of what appears to be a single human animal.⁶ Since the hybrid account identifies persons and animals, it will have to treat the twins as one person with a divided mind, where psychological unity and prudential considerations suggest two persons. The mental unity that makes the dicephalus appear to be two persons is the same basis for the transplant intuition. Imagine just one of the dicephalus's two cerebra being transplanted. Most people will consider that the transplant of a person. But it can't be due to preponderance of characteristic animal activities because the living body and one thinking cerebrum remain behind. It likewise seems that mental unity considerations rather than the quantity of an animal's characteristic functions dominating are what explains the transplant intuition when the cerebrum of a typical human animal with just one head is transplanted.⁷

⁶ See Boyle (2019) for a biologically sophisticated account of individuating conjoined two-headed twins as one organism.

⁷ A referee asks, "*If there is only one organism there, this poses a problem for standard animalists anyway. So what's the special problem for the hybrid approach?*" The unique problem posed by dicephalus for the hybrid theory is that the latter will fail to obtain its goal of capturing the idea that we are identical to an animal and that psychological unity and continuity are relevant to our individuation and persistence. The animalist is already on record as claiming that psychology isn't metaphysically important, and the transplant intuition provides no evidence about our identity and persistence, so animalism doesn't fail internally to live up to its principles when

IV. The Bad Biology of Fatal Grafts and Reproduction via Organ Removals

The hybrid account is bad biology and misguided metaphysics. Acquiring an organ should not be fatal. No life processes have stopped. Animals popping in and out of existence without noticeable biological changes appear to be bad biology. The animalist will protest that if human people are identical to human animals, then they wouldn't move with the cerebrum if the same animal that once had a brain is still in the original operating room in a brainless state. Animalists insist that functioning cerebra are neither needed for an animal to persist nor sufficient. Human embryos existed early in their lives without cerebra, and older humans in permanent vegetative states have nonfunctioning and liquefying cerebrums. A detached cerebrum is an organ, not an organism; it is not alive while animals are essentially living organisms. Organisms are entities that integrate and maintain themselves as units, engaging in metabolism and homeostasis, assimilating oxygen, excreting wastes, maintaining their boundaries, and so on. Organs don't do that.

Moreover, there is no denying that after the removal of the cerebrum for transplant there is a living cerebrumless animal in the operating room. It would seem that if the hybrid theorist claims that the posttransplant cerebrumless animal is not identical to the human being with a cerebrum that was brought into the operating room prior to the surgical procedure, then there has come into existence a new human animal, merely as a result of cerebrum removal. How, asks the amazed animalist, can a new animal pop into existence when there hasn't been any noticeable change in life processes during the operation? It certainly doesn't appear that an animal died on the operating table and a new animal took the place of the deceased. Furthermore, since the hybrid theorist maintains that the human being has moved with its cerebrum, placing that cerebrum into a mindless animal body will bring about the demise of that animal and its replacement by the human animal that the transplanted human being was identical to. The animalist protests that placing a cerebrum in a cerebrumless entity can no more bring about the replacement of one animal with another than can the transplant of a liver.⁸ Claims to the contrary

encountering the two heads of dicephalus that lack psychological continuity with and prudential concern for each other.

⁸ Olson (1997, 114–19).

are just bad biology. This bizarre biology provides us with reason to reject Langford's view that *animal* is a phase sortal and we animals are only contingently animals.

Madden appeals to plant grafting as when one plant acquires a new branch (2016, 14–16) to explain how a transplanted cerebrum can acquire a body, assimilating a larger biological mass. He says we shouldn't think the dominant entity is always the bigger one. It may be that a giant banana leaf will be assimilated by the stem and roots of a leafless plant. While that is likely correct, it is a flawed analogy when extended to the cerebrum transplant. The cerebrum is in no position to be absorbing a mindless organism. It is the latter that has the biological capacities of assimilating matter and making it into a part; the cerebrum is devoid of such abilities. The cerebrum can't even biologically maintain itself, much less acquire new parts. Cerebra are grown by organisms, and they are maintained, are repaired, and have parts replaced in virtue of the autonomic metabolic, homeostatic, immunological, and waste-removing processes of the organism.⁹ This suggests that Madden's mistake is to move from animal life being necessarily distinguished from vegetative life by thought and movement to infer that such traits are sufficient to be an animal. But an animal still requires the mindless vegetative processes that assimilate matter.

V. Evolving Disjunctions

Langford explicitly endorses that we could acquire an inorganic body. "We are human organisms and can persist with inorganic parts" (361). We would still exist because our continued psychology is sufficient. Madden's antireductionism, rejection of van Inwagen's compositional principle, and commitment to characteristic psychological functions suggest he would concur. Ergo, we could become cyborgs or completely inorganic as long as our psychology continues. But does this mean that the disjunction of properties would then include the inorganic traits characteristic of our robotic/inorganic body? Imagine that our robotic body maintains itself

⁹ Madden may not see this because he disregards van Inwagen's (1990) starting point of asking the special composition question (SCQ) about what makes the Xs compose a Y. He considers this an "idiosyncratic...reductive-mereological project" (Madden 2016, 4), emphasis on the microscopic rather than upon the central capacities of the macroobject. But it brings to our attention what must be done to the Xs to make them parts of the Y.

independently of our conscious instructions. Then if our thought is extinguished, just as we could have survived as an organism in a vegetative state, so also do we come to exist as a mindless machine? That is a very strange animal and surely isn't a psychological-biological continuer.

Hybrid theorists could rule this out by stipulation, but what is the principle that prevents disjunctive persistence conditions from evolving? Why would features of organic biology and psychology be represented in our disjunctive persistence conditions but not traits of inorganic robotics? These can't be excluded in the manner in which Langford rules out Lot's wife from persisting as a pillar of salt, as that is an introduction of a state she never was in before, unlike surviving in virtue of the continued presence of characteristic psychological traits after the loss of life processes. It won't help to appeal to psychology and biology being *original* capacities, for we were once organisms without psychology. Is it a principled objection that the organism was programmed to develop thought? Imagine it was missing the genes to produce thought from its creation and they were added via gene therapy. Why could they be added and eventually affect the disjunctive series but inorganic parts and properties could not be?

VI. The Only A and B Rule

The disjunctive account runs afoul of the rationale behind the only *aA* and *Bb* rule (Hawley 2005). Hawley explains there should not be cases where entities owe their existence to another being despite being causally unaffected by that existence determining entity.¹⁰ She argues that such accounts should be rejected because they posit "unexplained existences." There is something suspect about solving the fission transitivity problem by an appeal to a closest continuer (dominance) account. We can see her point about unexplained correlations where things are dependent upon each other for their existence or demise but in a *noncausal* manner in the hybrid theorist's interpretation of the cerebrum transplant. The original human being survives in a mindless state (when the cerebrum is removed by destroying it), and there isn't a good rival candidate for being the original human being; but that human being doesn't survive as a mindless creature when the cerebrum is transplanted intact and functional rather than destroyed. Whether a minded animal A is identical to a later mindless animal B should just depend on the causal relations between them, not upon the extrinsic presence of C. The physical and causal

¹⁰ See also Noonan's claim (2003, 129–31, 136–37, 139) that identity should supervene on local facts.

relationships between animal A and the organic matter of a mindless animal are the same when A survives as B composed of that matter and when A survives not as a mindless animal but as being identical to a detached cerebrum-sized thinker C.

Although the hybrid theorists are treating the cerebrum transplant as asymmetrical fission, they would likely have to say that where psychologically equivalent cerebral hemispheres were separated and transplanted, the original person would go out of existence, as neither recipient of a hemisphere would be a better candidate for being the original person.¹¹ This too runs afoul of the rationale behind the only aA and bB rule, as the person with the left hemisphere would not be that person if it weren't for the existence of the person with the right hemisphere likewise being psychologically continuous with A. So the individual with the left hemisphere owes his existence to the person with the right hemisphere, but there are no causal connections between the persons with the right and left hemispheres despite the existence of each playing a role in the creation or sustaining of the other. It would be a different person with the left hemisphere that is psychologically continuous with A ~~even~~ if the person with the right hemisphere didn't exist. Likewise, the person with the right hemisphere would be a different person if there weren't someone with the left hemisphere. So the two postfission persons not only prevent A from continuing to exist, but they also *noncausally* bring it about that they each exist.

Thus Hawley provides us with reasons for denying that an identity criterion should include a closest continuer clause that says A and B are identical unless there is an equally good

¹¹ Langford doesn't as clearly reject the only a and by rule as does Madden. He leaves it open that there are numerous responses to fission available to disjunctivists (2014, 365). Only two of his five suggestions violate the rule. These are the Parfit-inspired approaches that claim that the prebranching individual either doesn't survive or does so in a sense that isn't identity preserving. His third and fourth approaches will invoke incredulous stares, as they involve an animal being multilocalized or identical to a creature at one time but not another. His fifth option of colocation seems to defeat the disjunctive aims of the hybrid theorist, where there is only one thinker for whom either psychology or biology is sufficient for persistence. Four-dimensional colocation will posit an animal and person as sharing temporal parts but not being identical, only the person capable of transplant. If the four-dimensionalist claims that there is a pair of biopsychic-continuers sharing temporal parts, then at best, one of them will be transplantable and the other will not have disjunctive persistence conditions. Three-dimensional colocation will mean there is a pair of overlapping thinking biopsychic-continuers but only one is transplantable.

or better competitor C. Hybrid theorists must tolerate unexplained existences when they construe transplants as fission scenarios. My contention is that this violation of the only A and B rule can be avoided if the hybrid theorist advocated hylomorphism. So let's turn to that fertile traditional view of the human being.

VII. Hylomorphism

The hylomorphism of Aristotle and Aquinas understands the human being to be the result of a rational soul or form configuring matter.¹² The product is a human animal that is identical to a human person. The soul is an integral part of the hylomorphic person/animal and is neither identified with the person nor seen as external to the animal as in the Cartesian account. The hylomorphic composite of soul and matter is essentially rational and essentially alive. Thus it has both aspects of the psychological approach and biological approach to personal identity. The hylomorphic human being will persist as long as it has a radical capacity to integrate a living body or produce thought. So the person will once have been a mindless embryo as its soul configured a living being and had the radical potential to produce thought even though the latter wasn't actualized during the embryonic period. Likewise, after the born suffer a brain injury, they may become mindless but still persist in virtue of the soul responsible for life processes and capable of thought after the brain is repaired.

Now imagine that a person's torso is terribly injured or cancerous, but there is available a healthy body belonging to a comatose person that can receive the transplant of the good cerebrum. According to Mark Spencer, the hylomorphic hybrid account of dominance is that the person tries to realize her higher powers, and so if the rationality can be realized in a functioning detached cerebrum (2010, 856–58), the ensouled person/animal goes with the cerebrum. Alex Pruss holds a similar view, writing, "To survive the adult human needs either a functioning cerebrum or a functioning lower brain and when both survive in a separated form, the animal

¹² Aristotle (1941, VII); Aquinas (1920). See Stump (1995, 2003) and Oderberg (2005, 2007) for helpful accounts of hylomorphism, contrasting the Aristotelian/Thomistic accounts with historical and contemporary rivals. Oderberg's real essentialism and hylomorphism (2007, 50, 59), with its appeal to "characteristic operations," determines essences in a manner very similar to the Wiggins-inspired account of Madden. The search for essence need not be reductionist and may fail if so (Oderberg 2005, 67). Both Wiggins and Oderberg acknowledge their debts to Aristotle.

goes with the cerebrum rather than the lower brain, as that is more central to it” (2011, 24). Since the human person is identical to the human animal, the animal/person has been moved even though she doesn’t instantiate biological life processes when cerebrum size and in transit. Thus if the cerebrum being removed is functional, the soul withdraws from the entire body and “drains” into the cerebrum. If thought can’t be realized in a detached damaged organ, then the rational soul and the possessor remain in a coma or persistent vegetative state due to the lack of a functioning cerebrum (Spencer 2010, 856–57). The presence of the soul that produces life functions indicates it is the same soul that has the root or radical capacity for rationality, though it is blocked in the brain damaged person (Lee 2017~~5~~, 58).¹³

Unlike the soulless hybrid account, hylomorphism doesn’t run afoul of the rationale behind the only A and B rule (Hawley, 2005), as the presence of the soul renders the animal identical to say B rather than C. It is not the absence of an equally good rival candidate that determines whether A is identical to B or C; it is the presence of the same soul that renders A identical to B or C. B and C will differ in parts. Only one could have the original soul that is crucial to the identity of A. There is thus a mereological difference between an organism in a vegetative state after a cerebrum transplant as opposed to an animal in a persistent vegetative state because its cerebrum has been destroyed.

There also isn’t a problem of the evolving disjunctive persistence conditions resulting in a mindless inorganic creature because the hylomorphic soul is the soul of a substance whose nature is that of a rational animal. Thus the soul will have to manifest either rationality or animality. The same soul possesses the power for thought as well as life. Where either is manifest, the other power exists unactualized. The soul of the rational animal couldn’t persist in the absence of the root (or radical or second-order) capacity for both thought and life. There is thus a principled reason the sufficient conditions of the hylomorphic cluster of persistence conditions don’t expand in the promiscuous manner that they do in hybrid theory.

Even grafting doesn’t pose as much of a problem for hylomorphism as it does for the soulless hybrid account of the person. The human soul configuring the detached cerebrum has the power to organize a living body. The power is unactualized in the cerebrum-size person.

¹³ An alternative account of the brain damage causing the loss of the capacity for expressing rationality and resulting in substantial change and succession of souls will be discussed later in this essay.

Since the soul is the source of the power of an organism to assimilate matter as a part, it is not a mystery why the cerebrum could add to its organic mass. The soul of the cerebrum-size person is the soul of an animal.

That said, I am not persuaded that hylomorphism is safely out of the metaphysical woods. I will not contest the *soul hydraulics* of Spencer and Pruss that determine where the soul is to be found in cerebrum transplant and brain damage scenarios but just highlight that this again involves bad metaphysics spawning bad biology. There is dubious biology involved in removing a cerebrum and transporting the now organ-size animal who is no longer alive¹⁴ but still an animal because of its soul's capacities to configure a living body. One biological absurdity of the transplant process is that the removal of a cerebrum means that a new cerebrumless animal pops into existence composed of the matter that was earlier a part of the now separated cerebrum-size animal. A second biological absurdity, perhaps overlooked by Spencer because of his focus on the brain in the vat rather than the reception of the transplant, is that the previously comatose person into which the cerebrum is transplanted will either come to coexist with the transplanted person when it receives a cerebrum (the rational soul of the comatose coming to use the new cerebrum to produce thought) or the earlier comatose person will pop out of existence. Why does the rational soul of an animal in the cerebrum destroy the rational soul of the animal in a vegetative state? Even if hylomorphism avoids Madden's grafting problem because the soul retains the capacity to assimilate matter when configuring just the cerebrum, why doesn't the soul of the mindless animal not also acquire the cerebrum and thus recover its thought? Neither soul should dominate, and thus we might end up with two souls configuring the same matter, producing two human beings where there appear to be one. This is again bad biology parented by bad metaphysics, leaving us with spatially coincident beings that hybrid theories were touted for avoiding. If instead the transplanted soul of the person eradicates the comatose person, then it would be unethical to ever act upon the transplant intuition motivating the entire hybrid approach. The transplant would immorally destroy one human person and immorally create another severely disabled human in a mindless state without a cerebrum. It is rather ironic that the forensic conception motivating the hybrid approach of personal identity is based on our

¹⁴ Organs aren't alive, as they lack the integration, self-maintenance, and direction of an organism (Olson 1997,

intuitions about what would happen in an unethical procedure.

VIII. Delayed Hominization and Departed Hominization

Perhaps the traditional Thomistic succession of souls theory, more recently championed by Donceel (1970) and Shewmon (1985~~6~~), could deal with the transplant thought experiment and take some sting off what seems to many of us moderns to be dubious biology and ethics. Aquinas believed that there is substantial change as a sensitive soul emerges and replaces the vegetative soul, and then substantial change again occurs when the rational soul is implanted by God and takes over the vegetative and sensitive functions (1975, II, chap. 89, 11). Rational ensoulment means that a new living entity has appeared on the scene but there isn't a noticeable change in life functions. It has been called "delayed hominization." So the traditional Thomistic theorist posits a new rational soul smoothly coming to configure matter that had been configured before by the sensitive soul.

It is likewise for the recipient of the transplanted cerebrum. Lacking a cerebrum, it is not a rational animal. Upon receipt of a rationally ensouled cerebrum, one mindless animal has been replaced by a distinct thinking animal. The soul that configured the cerebrum during the transplant procedure comes to configure the matter of the doomed organism that receives the transplant. Although it didn't look like the death of one organism and the replacement of it with another, this occurrence is in principle no different from what happens in the Thomistic succession of a soul's story with the substantial change from a creature with a sensitive soul to one with a rational soul.

What occurs with the removal of the cerebrum in the transplant thought experiment is basically the reverse. We can call it "departed hominization." Aquinas seems to defend departed hominization. He writes, "In the course of corruption, first the use of reason is lost, but living and breathing remain: then living and breathing go, but a being remains, since it is not corrupted into nothing...when human being is removed, *animal* is not removed as a consequence"¹⁵ So claiming that substantial change has occurred upon the removal of the cerebrum doesn't involve any radical adjustment to the tenets of the traditional Thomistic hylomorphic theory. The

15 Aquinas, *In Librum De Causis Expositio*, (20–21) Pasnau Translation (2002, 124)

advocate of Aquinas's metaphysics has to anyway accept substantial change and the replacement of one organism by another where there appears to be no death and no corpse has appeared.

The hylomorphic tradition has the resources to take some of the sting off the animalist's charge that no animal will replace another when the former's cerebrum is removed and that no animal will go out of existence when the functioning cerebrum of another is placed in its skull. It is important for Christian readers to keep in mind their commitment to our being distinct in creation. We are told in Genesis that we are made in God's image. Aquinas rejects the claim that "the image of God is also in the body, and not only in the mind" Instead, he claims that "man is the most perfectly like God according to that which he can best imitate God in his intellectual nature" (1920, 1 Q 93 a. 4). We are the only rational, self-conscious, free, and morally responsible animals. These capacities distinguish us from all other living creatures. If such capacities are granted to have ontological significance rather than just conceived as contingent features of us, then if the matter that composes something with such capacities later composes something without these capacities, none of us would be identical to the resulting entity. So it is not as bizarre for the Thomistic metaphysician to posit in the cerebrum transplant thought experiment that most of the matter that had composed us moments before our cerebrum's removal afterward ceases to do so, since the soul that makes our unique mental capacities possible no longer configures that matter. The resulting body composed of the matter that used to be configured by our soul won't even have dormant or stymied mental capacities, for they have gone with the transplanted cerebrum.

The traditional Thomistic succession of soul theories also avoids rendering the transplant either the metaphysically unwelcome collocation of persons or the destruction of a *person* that would occur in Pruss and Spencer's account. There is no person to be destroyed, as the rational soul vanished with the destruction of the cerebrum that had configured the matter that will receive a new transplanted cerebrum. This also avoids the ethical problems of fatal cerebrum transfers and creating disabled human beings, plaguing both soulless hybrid views and the immediate hominization account of hylomorphism when it is construed as a hybrid theory.

IX. Survivalist Metaphysics and Pressures to Accept a Hybrid Metaphysic

Most contemporary hylomorphic thinkers argue that delayed hominization of Aristotle and

Aquinas is a mistake due to the bad biology of their eras (M. Condic and S. Condic 2018; Haldane and Lee 2003; Eberl, 2014) and that it is not a core tenet ofhylomorphism. Now a hylomorphic metaphysic need not be committed to any of these bad metaphysical and biological views. It can just claim that we are rational animals who must always be alive and can't become organ size; instead, we will become mindless creatures in persistent vegetative states when our cerebra are removed even if the cerebra function and produce thought, at least after being transplanted, if not during the transport. Our soul would give us the power to regrow the cerebrum in a scientifically advanced future (Shewmon 1997, 73–74), just as we grew one as an embryo, or would enable us to reconfigure one received in a future transplant, just as we do now with actual organ transplants.

Nevertheless, there is some pressure to accept the transplant intuition of the hybrid construal of hylomorphism if one accepts Thomistic survivalism. This account of the posthumous preresurrection afterlife maintains that the human animal exists disembodied in purgatory in virtue of the soul's existence and powers to configure matter in a living form (Eberl 2009; Stump 2003, 51–54; Oderberg 2007, 264–65; Thornton 2019). If a disembodied person is an animal in virtue of a radical capacity to engage in life processes if embodied, then why isn't the person consisting of the detached cerebrum also an animal because of its radical capacity to configure a living body?¹⁶ So it would seem that if survivalists already think that the human animal can survive with only its psychological capacities in the interim state, then they should judge it likewise to be the case that the animal survives reduced to the size of the detached thought producing organ.

There is also pressure upon hylomorphic thinkers to accept the cerebrum transplant as the transplant of a human animal if one thinks the animal exists, reduced in size, without being alive in cases of high-level cervical spinal cord injuries or extreme Guillain-Barré syndrome. The view is that where the human being thinks but doesn't engage in life processes—perhaps having been reduced to the size of part of the brain (Moschella 2016, 283, 289, 293, 295; Eberl 2011, 52)—the presence of thought indicates the presence of the soul even in the absence of life processes. Condic writes of persons with damage that prevents the exercise of integrating biological

¹⁶ Does the supernaturalism of the survivalist account limit the lessons that can be extended to the transplant scenario?

processes: “This results in a human being who only exercises a subset of their natural abilities and who is no longer able to exercise his capacity to function as an organism....So long as SCI patients exhibit brain function...there is reason to believe that the human soul (which is also the principle of the capacity for organismal integration) persists, and that such patients are therefore *alive*” (2016, 268–69). If the human animal can exist in virtue of thought in the extreme injury case in which biologically integrating life processes are absent, why can’t it survive reduction to cerebrum size in the transplant scenario? If so, it commits its adherents to a dubious metaphysics that spawns the bad biology of animals popping in and out of existence merely because of the loss or acquisition of a cerebrum, which modern biology doesn’t recognize as important to life processes.

X. Conclusion

If hylomorphic theorists want to preserve the hybrid intuitions about transplants, then they might follow the historical Aquinas and look to revive delayed hominization. I suspect instead that the flawed assumptions of delayed hominization place more weight on the scale against interpreting hylomorphism as a hybrid approach. More importantly, the dubious metaphysics and biology of hylomorphism construed as a hybrid theory that allows us to be transplanted with our cerebrum and either destroy or coincide with another person provide a reason to be skeptical of the survivalist strand of hylomorphism.¹⁷ Perhaps God’s involvement in the survivalist account of posthumous existence will enable hylomorphists to distinguish such disembodied animals not engaging in life processes from the alleged animals that have become cerebrum-sized thinkers not engaging in life processes. But without such a supernatural rescue, the arguments canvassed in this paper suggest that it is a dubious biology that has organisms popping in and out of existence due to the movement of organs that are not considered essential to life. My recommendation is that hylomorphic theorists try to explain away rather than accommodate the

¹⁷ More precisely, it provides reason to be skeptical of a survivalist account that understands human animals / persons to be disembodied between death and the resurrection. After surveying the metaphysical and moral merits and demerits of survivalism and its rival, corruptionism, D. Hershenov and R. Hershenov (2017) suggest that it might be worth considering an alternative Dante-inspired account of survivalism where souls are embodied between death and resurrection.

transplant intuition in the manner of hybrid theories.¹⁸

References

- Aquinas. *In Librum De Causis Expositio*, 2002. Paris, France: J. Vrin Publishers
- . 1920. *Summa Theologica*. ~~*Summa Theologiae*~~. Translated by Fathers of the English Dominican Province. London: Washbourne and Oates.
- . 1975. *Summa Contra Gentiles*. Translated by James F. Anderson. London: University of Notre Dame Press.
- Aristotle. 1941. *Metaphysics*. In *Basic Works of Aristotle*, edited by Richard McKeon. New York: Random House.
- Boyle, Alexandria. 2019. “Conjoined Twinning and Biological Individuation.” *Philosophical Studies* 177. <https://doi.org/10.1007/s11098-019-01316-x>.
- Condic, Maureen. 2016. “Determination of Death: A Scientific Perspective on Biological Integration.” *Journal of Medicine and Philosophy* 41:257–78.
- Condic, Maureen, and Samuel Condic. 2018. *Human Embryos, Human Beings: A Scientific and Philosophical Approach*. Washington, DC: Catholic University of America Press.
- Donceel, Joseph. 1970. “Immediate Animation and Delayed Hominization.” *Theological Studies* 31.
- Eberl, Jason. 2009. “Do Human Persons Persist between Death and Resurrection.” In *Metaphysics and God: Essays in Honor of Eleonore Stump*, edited by Kevin Timpe, 188–205. New York: Routledge.
- . 2011. Ontological status of whole-brain-dead individuals. In *The Ethics of Organ Transplantation*, ed. S. J. Jensen, Washington, DC: The Catholic University of America Press. 43–71.
- . 2014. “Persons with Potential.” In *Potentiality: Metaphysical and Bioethical Dimensions*, edited by John P. Lizza, 197–219. Baltimore: MD. Johns Hopkins

¹⁸ Hershenov (2016, 222–25) suggests a strategy to resist the transplant intuition. It avoids Olson’s (1997) appeal to Parfit’s fission-inspired account of identity not mattering. Parfit obtains that result by illegitimately helping himself to a criterion of identity that includes a uniqueness clause that violates the only a and b rule (Noonan 2003; Hershenov and Taylor 2017). Parfit then argues that since uniqueness is trivial and extrinsic and so can’t be what matters, that leaves the other component of his identity criterion, psychological relation R, as what matters rather than identity itself.

- University Press.
- Haldane, John, and Patrick Lee. 2003. "Aquinas on Human Ensoulment, Abortion, and the Value of Life." *Philosophy* 78:253–76.
- Hawley, Katherine. 2005. "Fission, Fusion and Intrinsic Facts." *Philosophy and Phenomenological Research* 71 (3): 602–21.
- Hershenov, David. 2016. "Four-Dimensional Animalism." In *New Essays on Persons, Animals, and Identity*, edited by Blatti and Snowdon. Oxford: Oxford University Press. 208-226.
- Hershenov, David, and Rose Hershenov. 2017. "Purgatory." In *Handbook on the Afterlife*, edited by Benjamin Matheson and Yujin Nagasawa, 215–33. London, United Kingdom. Palgrave Macmillan.
- Hershenov, David, and Adam Taylor. 2017. "Personal Identity and the Possibility of Autonomy." *Dialectica* 71 (2): 155–79.
- Langford, Simon. 2014. "On What We Are and How We Persist." *Pacific Philosophical Quarterly* 95 (3): 356–71.
- Locke, John. 1975. *An Essay concerning Human Understanding*. Edited with critical introduction by Peter Harold Nidditch. Oxford: Oxford University Press.
- Lee, Patrick. 2017. "Having a Rational Nature as the Basis for Being a Subject of Rights" *University Faculty for Life Proceedings* XXVII. 51-65
- Madden, Rory. 2015. "The Place of the Self in Contemporary Metaphysics." *Royal Institute of Philosophy Supplement* 76:77–95.
- . 2016. "Human Persistence." *Philosophers' Imprint* 16 (17): 1–18.
- McDowell, John. 1997. "Reductionism and the First Person." In *Reading Parfit*, edited by J. Dancy. Oxford: Blackwell. 230-250
- Moschella, Melissa. 2016. "Deconstructing the Brain Disconnection–Brain Death Analogy and Clarifying the Rationale for the Neurological Criterion of Death." *Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine* 41 (3): 279–99.
- Noonan, Harold. 2003. *Personal Identity*. London: Routledge.
- . 2012. "Personal Pronoun Revisionism—Asking the Right Question." *Analysis* 72 (2): 316–18.
- Nozick, Robert. 1981. *Philosophical Explanations*. Oxford: Clarendon.
- Oderberg, David. 2005. "Hylemorphic Dualism." *Social Philosophy and Policy* 22 (2): 70–99.
- . 2007. *Real Essentialism*. New York: Routledge.

- Olson, Eric. 1997. *The Human Animal: Personal Identity without Psychology*. Oxford: Oxford University Press.
- . 2003. “An Argument for Animalism.” In *Personal Identity*, edited by R. Martin and J. Barresi, 318–34. Oxford, UK Blackwell Publishers.
- . 2004. “Material Coincidence and the Indiscernibility Problem.” *Philosophical Quarterly* 51 (204): 337–55.
- . 2007. *What Are We?* Oxford: Oxford University Press.
- . 2008. “Was I Ever a Fetus?” In *Philosophy through Science Fiction*, edited by R. Nichols, Nicholas Smith, Fred Miller Routledge. 339-348.
- . 2015. “What Does It Mean to Say That We Are Animals?” *Journal of Consciousness Studies* 22 (11–12): 84–107.
- Pasnau, Robert. 2002. *Thomas Aquinas on Human Nature*. Cambridge: Cambridge University Press.
- Pruss, Alex. 2011. “I Was Once a Fetus: That Is Why Abortion Is Wrong.” In *Critical Analysis of Pro-choice Arguments*, edited by Stephen Napier. Springer. 19-42
- Schechtman, Mayra. 2014. *Staying Alive: Personal Identity, Practical Concerns, and the Unity of a Life*. Oxford: Oxford University Press.
- Shewmon, Alan. 1985. “The Metaphysics of Brain Death, Persistent Vegetative State, and Dementia.” *Thomist* 49:24–80.
- Shewmon. 1997. “Recovery from Brain Death: a Neurologist's Apologia.” *The Linacre Quarterly* 64 (1): 30-96.
- Spencer, Mark. 2010. “A Reexamination of the Hylomorphic Conception of Death.” *Review of Metaphysics* 63 (4): 843–70.
- Stump, Eleonore. 1995. “Non-Cartesian Substance Dualism and Materialism without Reductionism.” *Faith and Philosophy* 12 (4): 505–31.
- . 2003. *Aquinas*. New York: Routledge.
- Thornton, Allison, 2019. “Disembodied Animals” [American Philosophical Quarterly](#) 56 (2):203-217
- Toner, Patrick. 2014. “Hylomorphism, Remnant Persons and Personhood.” *Canadian Journal of Philosophy* 44:76–96.
- Van Inwagen, Peter. 1990. *Material Beings*. Ithaca, NY: Cornell University Press.
- Wiggins, David. 2001. *Sameness and Substance*. Cambridge: Cambridge University Press.

