

The Justification of Killing and Psychological Accounts of the Person

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Abstract. One typical route to justify abortion rights is to argue that human fetuses and embryos are not persons—call this the no-person strategy. Arguments for this strategy aim to justify a psychological account of the person and this is done by appealing to various thought experiments, particularly brain-transplant experiments. I argue that both (i) a hylomorphic account of the person is consistent with the intuitions these experiments generate; and (ii) the hylomorphic account is compatible with persons coming into being prior to the exercise of a psychological power. Thesis (i) suggests that thought experiments are not exclusive motivations for a psychological account (i.e., the hylomorphic account can be true assuming everything we learn from the experiments). Thesis (ii) suggests that only one of the two theories justifies abortion-rights. It follows that the no-person justification for abortion rights is under-determining.

I.

I*ntroduction.* One strategy for justifying abortion rights is to argue that the human embryo or fetus (hereafter simply “fetus”) is not like you and me (adult persons) in morally relevant ways. With the growing popularity of psychological accounts of the person, defenders of abortion rights need not rely on arguments that assume the personhood of the fetus such as those of J. J. Thomson.¹ I take this to be an improvement. In the words of one commentary on Thomson’s argument:

Suppose you want to justify abortion. And suppose you were willing to grant that the fetus is a human person from the moment of conception. You have set yourself no easy task. . . . If you allow that the abortionist’s

¹J. J. Thomson, “A Defense of Abortion,” *Philosophy and Public Affairs* 1, no. 1 (1971): 47–66. For a criticism see John Finnis, “The Rights and Wrongs of Abortion: A Reply to Judith Thomson,” *Philosophy and Public Affairs* 2, no. 2 (1973): 117–45; and Christopher Kaczor, “The Violinist and Double-Effect Reasoning,” *National Catholic Bioethics Quarterly* 6, no. 4 (2006): 661–9.

endeavor is aimed at a real human person, have you not thereby made your own task impossibly difficult?²

Though Schwartz and Tacelli think that the task is impossibly difficult, I do not have to go so far in setting aside Thomson-type arguments. Most parties to the debate should agree that the task is made more difficult when one assumes that the fetus is a person, and that is enough to rely on a stronger strategy. In this author's assessment, it is more plausible to argue that the fetus is not a person where "person" is understood as an entity that can exercise psychological capacities. We can be fairly certain that since early-term fetuses do not have such exercisable capacities, a psychological account of the person rules that early term fetuses are not persons. Therefore, killing them is not killing a person. I call this the no-person strategy for defending abortion rights and it captures our pre-theoretical intuitions on what we consider to be important aspects of persons.

There are numerous motivations for a psychological account of the person. Arguably, the most popular are brain transplant examples pioneered by Sidney Shoemaker.³ My task is to argue that insofar as the psychological account is motivated by thought experiments, that view is under-determined when it functions as a justification for abortion rights. I argue for this conclusion in two stages. First, I argue that brain transplant thought experiments (BT experiments)⁴ cannot function as arguments for the psychological account since the intuitions they generate can be accounted for by a conceptually distinct account of the person: namely, a hylomorphic account. If the same thought experiment generates intuitions that are consistent with two different theories, BT experiments are not exclusive motivations for a psychological account. Second, I argue that the hylomorphic account of the person is compatible with the position that human persons come into existence at conception. The significance of arguing only for compatibility is as follows. Psychological accounts are able to justify killing in the case of abortion *only* by arguing that the fetus is *not* a person. It would be a

²Stephen Schwarz and R. K. Tacelli, "Abortion and Some Philosophers," *Public Affairs Quarterly* 3, no. 2 (1989): 81–98.

³Sidney Shoemaker, *Self-Knowledge and Self-Identity* (Ithaca: Cornell University Press, 1963).

⁴I focus on brain transplant examples instead of just any bodily transfer experiment because BT experiments have an edge of plausibility to them insofar as what gets transferred is your brain. In teleportation experiments what gets transferred is information. (See Sidney Shoemaker, "Self and Substance," *Noûs* 31, *Supplement: Philosophical Perspectives: Mind, Causation, and World* (1997): 283–304.) Those who are inclined towards materialism, or even some form of emergent dualism, will reject the latter experiments as being uninformative. Peter van Inwagen seems right to argue that being a realist about persons and being a materialist (of sorts) requires thinking that teleportation scenarios are not person-preserving. See Peter van Inwagen, "Materialism and the Psychological-Continuity Account of Personal Identity," *Noûs* 31, *Supplement: Philosophical Perspectives: Mind, Causation, and World* (1997): 305–19.

weak and careless justification for killing a human fetus if the notion of personhood in question is compatible with the personhood of the fetus. It is plausible to suppose that if developing human beings (e.g., embryos, fetuses) may be persons, the justification for killing them is undercut. Such a justification does not meet our practical interest in not being wrong that abortion is permissible.⁵

I rely on a third premise which, though plausible enough to assume here without argument, is not without controversy. The premise is the notion of underdetermination according to which “the evidence available to us at a given time, may be insufficient to determine what beliefs we should hold in response to it.”⁶ If two conflicting hypotheses account for the same phenomena, all else being equal, there is no evidence that can justify accepting one hypothesis over the other. Of course, there are other properties of hypotheses that can adjudicate their acceptance, for example, accounting for a broader set of phenomena. In the context of the present discussion, there is not a broader set of phenomena

⁵I am assuming that it is impermissible either to kill human persons intentionally or even to kill what one thinks *may* be a person. There are several routes by which to challenge this assumption. One could argue that even if *S* is a person, if *S* does not have a time-relative interest in living, she may be killed. On this route, having an interest in living is necessary to explain the wrong of death. (See Jeff McMahan, *The Ethics of Killing: Problems at the Margins of Life* [New York: Oxford University Press, 2002], 232ff.; and David DeGrazia, *Human Identity and Bioethics* [New York: Cambridge University Press, 2005].) Another route is to grant that *S* is a person, and has interests, but to argue that the interests of the mother override the interests of the unborn person. (See Mary Anne Warren, “On the Moral and Legal Status of Abortion,” *Monist* 57, no. 1 (1973): 43–61, at 58ff.) I do not address either route in this paper, and in this regard, the scope of my present argument is limited. However, two points are worth mentioning. First, the task of this paper is to address what is typically taken as a justification for early-term abortions. This is the no-person strategy mentioned in the introduction. The two routes just mentioned are justifications not just for early-term abortions, but later-term ones and even infanticide as well, since a time-relative interest in living does not occur, we may presume, until sometime late in gestation or after birth. Second, although I find the two routes interesting and engaging, the premises upon which such arguments are based do not exceed the initial plausibility of the judgment, “it is impermissible to intentionally kill human persons.” That judgment begins, so to speak, with a high degree of plausibility. So, even if the two routes provide good justification for killing persons, the onus of proof requires providing indefeasible justification given the high stakes context. (For more on the epistemic demands created by high-stakes contexts, see Jeremy Fantl and Matthew McGrath, “Evidence, Pragmatics and Justification,” *The Philosophical Review* 111, no. 1 [2002]: 67–94. There are good arguments that the two routes mentioned do not provide indefeasible justification. See Christopher Kaczor, *The Ethics of Abortion* [New York: Routledge, 2011], ch. 7; Alexander Pruss, “I was Once a Fetus: That is Why Abortion is Wrong,” in *Persons, Moral Worth, and Embryos*, ed. Stephen Napier [Dordrecht: Springer, 2010], 19–42; and Mathew Lu, “Abortion and Virtue Ethics,” in *Persons, Moral Worth, and Embryos*, ed. Stephen Napier [Dordrecht: Springer, 2010] 101–24.)

⁶Stanford, Kyle, “Underdetermination of Scientific Theory,” *The Stanford Encyclopedia of Philosophy* (Winter 2013 Edition), ed. Edward N. Zalta, <http://plato.stanford.edu/archives/win2013/entries/scientific-underdetermination/>.

since proponents of the psychological account take as its chief motivation our intuitive responses to thought experiments. With regard to those phenomena, I argue that hylomorphism and psychological accounts are on par.

The first section limns the psychological account. The second argues that the hylomorphic account can accommodate the intuitions generated by the BT experiment. The third shows that the hylomorphic account is compatible with the personhood of the fetus, and this includes considering an important objection of Jeff McMahan's. I conclude by noting the limitations of my argument.

Before continuing, it is important to address whether my argument gains any dialectical ground in the long and exhaustive abortion debates. The strategy for abortion opponents has been to argue that the human person comes into existence very early on in the gestational process (e.g., at conception, syngamy, or gastrulation). Beginning with Michael Tooley and Mary Anne Warren, the strategy in defense of abortion rights has been the no-person strategy. The debate concerns, with exceptions noted immediately above (n5), who has the best philosophical account of the person. My argument avoids this question altogether. The key premise in my argument does not adjudicate which account is better, but only relies on the claim that both accounts can accommodate or explain the intuitions generated by BT experiments and that one account is compatible with the personhood of the human fetus. Since only one such account provides a reason for the permissibility of abortion, and the other does not, the justification for abortion suffers underdetermination.⁷ Thus the no-person strategy fails as a justification for abortion until such time as the theory can be founded on exclusive motivations.

II.

The Psychological Account and its Motivation. The aim of the psychological account is to argue that human persons are psychological entities. There are different permutations of that account. Some think that what is required to be

⁷Even this concession may be too much for some pro-life philosophers. It seems plausible that killing x is not permissible simply because x is not a human person in the relevant sense. Rightly categorizing x as a kind of thing clearly is not itself a reason to kill x . What about the lack of value? Here too, that x does not have some moral worth is not itself a reason to destroy x . My copies of the *Summa* may not have moral worth, but that alone is clearly not a reason to destroy them. Maybe the reason to destroy the unborn child is the burden that child will be when born. This may count as a reason, but it appears to grant the identity of x when she is not born with x when she is born. That is, such a reason only makes sense if we assume the identity of x from unborn to born. But this would seriously threaten the no-person strategy which tells us that they are two different things. Therefore, the very reason typically cited for abortion is in tension with a philosophical defense of abortion. This argument requires further development, but it is enough here to note why my concession in the text may be too much for some.

a person is self-consciousness, simple consciousness,⁸ or having a capacity for self-consciousness rooted in a functional brain. The task for those working on personal identity is to answer some questions: What are the criteria of identity through time? What matters in survival? What are we? For most psychological accounts, the answers to these questions have something to do with consciousness. Here is where answering the “what are we?” question, for example, and answering questions in the philosophy of mind may converge. To be precise in what follows, these issues need to be kept separate.

Consider William Hasker’s view. He notes that human minds exercise causal powers and are endowed with libertarian free will, and that consciousness requires a unified self. First-person experience, causal power, and free will are not mere properties, however.

A conscious experience simply *is* a unity, and to decompose it into a collection of separate parts is to falsify it. So it is not enough to say that there are emergent properties here; what is needed is an *emergent individual*, a new individual entity comes into existence as a result of a certain functional configuration of the material constituents of the brain and nervous system.⁹

To Hasker’s credit, he is sensitive to the problem of sliding from an accurate description of the nature of human consciousness (its first-person quality, top-down causal powers, irreducibility, etc.) to an etiological claim about when persons come into existence. Hasker quotes Timothy O’Connor’s worry in this regard according to which, “the idea of a natural emergence of a whole substance is perhaps a lot to accept.”¹⁰ Indeed it is: it involves attributing to matter the power to create individuals. “The theory requires us to maintain . . . that the potentiality for conscious life and experience really does exist in the matter itself.”¹¹ If, however, the power is there in the matter all along, why make the etiological claim that we come into existence only when we have our first experience? Unless emergent dualists wish to say that you and I are identical to conscious states, which seems counter-intuitive, nothing in their account of the mind forces them to make the aforementioned etiological claim. Jeff McMahan appears sensitive to this problem and he tries to motivate an account of the person such that—paired with human developmental facts—you and I do not come into existence until 20–28 weeks gestation.¹² McMahan’s goal is to argue

⁸Werner S. Pluhar, “Abortion and Simple Consciousness,” *Journal of Philosophy* 74, no. 3 (1977): 159–72.

⁹William Hasker, *The Emergent Self* (Ithaca: Cornell University Press, 1999), 190, emphasis original.

¹⁰Quoted in Hasker, *The Emergent Self*, 192.

¹¹*Ibid.*, 194.

¹²Jeff McMahan, *The Ethics of Killing: Problems at the Margins of Life*, (New York: Oxford University Press, 2002), 268.

for the etiological claim not through an accurate account of consciousness, but by exploiting our intuitions on what counts as a person.

McMahan presents his readers with a quad-lemma to the question of what we are essentially. We are either souls (understanding “soul” in an Aristotelian sense or a Cartesian one), human organisms/animals, psychological entities, or finally, embodied minds. His objections to accounts appealing to souls are separate from the dialectical progression beginning with human organisms. I address his argument against souls in section III.

Ideas that motivate the transition from animalist accounts to a psychological account are the brain transplant (BT) examples and the dicephalic twin example (the twin example is considered in detail below). These examples aim to highlight the intuition that we are not identical to our bodies, but rather to our psychological capacities rooted in a functional brain. Where our functional brains go, there we go also. Here is McMahan’s rendition of a BT example:

One’s entire brain is extracted and transplanted into the body of one’s identical twin, who has just suffered brain death and whose brain has been removed. One’s brain is appropriately connected to the nerves in one’s twin’s body, so that after the operation a person is revived in one’s twin’s body who is fully psychologically continuous with oneself as one was before the operation. Most people believe that one would survive this operation and would continue to exist in what was formerly the body of one’s identical twin.¹³

Let us say that the brain of Jack is transplanted into a decerebrate body. Let us call the entity with Jack’s brain John. The intuition is that Jack is John because where Jack’s thoughts, beliefs, memories, desires and feelings go, there he goes also. At this point, McMahan has established at the very least that being a person must have something to do with being able to think, believe, remember, etc.

Once a largely psychological account of the person is motivated, McMahan moves on to motivate specifically an embodied-mind account. For McMahan, the specific contents of one’s psychology—her beliefs and memories—are sufficient but not necessary for being a person. Considering cases of deprogramming, whereby a person loses his/her specific memories and beliefs such as with progressive dementia, he suggests that the person is not thereby destroyed because demented patients are often still aware of their surroundings. In this regard, the embodied-mind account

stresses the survival of one’s basic psychological *capacities*, in particular the capacity for consciousness. It does not require continuity of any particular

¹³Ibid., 20.

contents of one's mental life. This allows that one may survive the deprogramming of one's brain and that one continues to exist throughout the progress of Alzheimer's disease, until the disease destroys one's capacity for consciousness.¹⁴

Summarizing the embodied-mind account, McMahan notes that,

There need be only enough physical and functional continuity [of the brain] to preserve certain basic psychological capacities, particularly the capacity for consciousness. This, I believe, is a sufficient basis for egoistic concern; it should, therefore, be a sufficient basis for identity, other things being equal.¹⁵

Functional continuity is defined as "the retention of the brain's basic psychological *capacities*," and physical continuity requires "either the continued existence of the same constituent matter or the gradual, incremental replacement of the constituent matter over time."¹⁶

I take the embodied-mind account of the person to be the most plausible species of a psychological theory.¹⁷ The chief motivation for this view is rooted in the brain transplant-dicephalic twin examples on one hand, and the deprogramming-Alzheimer's cases on the other. What the BT experiments intend to show is that our psychological properties are fundamental to our identity. The procedure is to use egoistic concern as a heuristic to identify what it is that you and I are essentially. The deprogramming and Alzheimer's cases motivate the idea that it is not the specific psychological contents that ground identity (or egoistic concern) but a preservation of one's basic psychological capacities. In a way, these two sets of thought experiments work together by limiting the scope of each. Whereas the BT experiments motivate the view that specific contents of one's psychology (e.g., specific beliefs and memories) are sufficient for being this person,¹⁸ deprogramming thought experiments motivate the view that specific

¹⁴Ibid., 68, emphasis original.

¹⁵Ibid., 69.

¹⁶Ibid., 68.

¹⁷Lynne Baker's constitutionalism deserves mention as being on par with McMahan's account. See Lynne Rudder Baker, *Persons and Bodies: A Constitution View* (New York: Cambridge University Press, 2000). The differences between embodied mind and constitutional accounts will not affect the argument in this paper.

¹⁸There is a complication regarding teletransportation thought experiments according to which one's contents are duplicated (somehow) and inserted (somehow) into a different body/brain. The intuition we are supposed to have is that the duplication of content duplicates the person: i.e., there are two persons with the same content. For those who have such an intuition having a specific set of beliefs and memories is *not* sufficient for picking out *this* person. McMahan and others do not find such experiments persuasive; and neither do I for the reasons McMahan and van Inwagen

contents are not necessary for being *a* person. The two experiments taken together suggest that what is necessary and sufficient is the preservation of one's capacity for consciousness rooted in a functional brain.

How does such a view of the person justify the permissibility of abortion? Psychological accounts have typically focused on justifying the permissibility of early-term abortions that McMahan defines as "an abortion that is performed prior to . . . the point at which the fetal brain acquires the capacity to support consciousness."¹⁹ For the sake of argument, assume that this developmental milestone occurs at around 22 weeks gestation. Prior to 22 weeks gestation, the embodied-mind account delivers the judgment that there is no person there to be killed: "An early abortion does not kill anyone; it merely prevents someone from coming into existence. In this respect, it is relevantly like contraception and wholly unlike the killing of a person. For there is . . . no one there to be killed."²⁰ This is the no-person strategy and it appears to enjoy both popularity and plausibility.²¹

III.

Thought Experiments and Kinds of Evidence. In this section I explore two routes by which to argue that the embodied-mind account's defense of abortion rights suffers from underdetermination. The first way is to point out that the BT experiments do not deliver metaphysical intuitions at all. Rather, what such thought experiments tell us is that in cases of radical change, certain kinds of evidence are more reliable (psychological continuity) in re-identifying the original person than other kinds of evidence (bodily continuity). A second route is to admit that the intuitions delivered are metaphysical in that they tell us what kinds of things persons are, but to argue that a hylomorphic account of the person can accommodate those very same intuitions. If the hylomorphic

note. (See McMahan, *Ethics of Killing*, 56–9 and n. 4 above.) In addition to McMahan's observations, I am inclined to think that something like belief transfer is either irrelevant or impossible. It is true that you and I can have the same belief in terms of its propositional content. Both of us can believe that "it is raining outside." But it is unintelligible how *you* can have *my* belief that it is raining outside. If what gets duplicated is simply the content, we did not need a thought experiment to tell us that. If what gets duplicated is *my* belief, we are asked to imagine the incoherent. More can be said, but since my interlocutor is McMahan I set aside this complication throughout.

¹⁹Ibid., 267.

²⁰Ibid. See also Jeff McMahan, "Killing Embryos for Stem Cell Research," *Metaphilosophy* 38, no. 2–3 (2007): 186.

²¹David DeGrazia offers the following appraisal of McMahan's argument: "Surely this is one of the most elegant defenses of abortion (or at least early abortions) ever conceived." (DeGrazia, *Human Identity and Bioethics*, 280). Dean Stretton observes that McMahan's *Ethics of Killing* is "the best work ever on abortion and related topics" (Stretton, "Critical Notice: *Defending Life: A Moral and Legal Case against Abortion Choice*," *Journal of Medical Ethics* 34 (2008), 793–7, at 797).

view does not entail that the fetus is not a person, the justification for abortion is underdetermined. I consider these replies in order.

Let's interpret BT experiments at face value. What they tell us is that where my beliefs, desires, and intentions go, there I go also. Assume for *reductio* that the intuitions the experiments generate are metaphysical intuitions about what persons *are*. But if what we are is identical to a specific set of beliefs, desires, and intentions, then persons exist in only one possible world. Change the set of beliefs, desires, etc. and one changes the person. Clearly, persons should not be identified with the particular set of beliefs, desires, or intentions that individuate us (McMahan is certainly correct to distance his account from this implication). Furthermore, McMahan himself puts the deprogramming example to good use by circumscribing the lesson of the BT experiments as previously mentioned. Intuitively, if we change Jack's beliefs either through deterioration caused by disease or through neural deprogramming, we still think that Jack remains Jack.²² Consider real-world examples of persons who are struck by lightning. Their personality typically changes, but we believe their identity remains constant: we would not think that Jack is no longer Jack after being struck. So our notion of person tolerates changes in one's beliefs, desires, and intentions.

For these reasons, I think McMahan is correct not to identify the person with specific psychological contents. McMahan is on the right track in identifying a person with one's psychological *capacities* rooted in a functional brain. But that leaves us with the question: what should be the take home lesson of the BT experiments?

Sidney Shoemaker introduced BT experiments in the philosophical literature with his *Self-Knowledge and Self-Identity*. His project in that book is to discover the criteria of personal identity. But here is how he understands that project:

In recent discussions the questions "How is the identity of Φ 's known?" and "In what does the identity of Φ 's consist?" are often reduced to the single question "What, or of what sort, are the *criteria* we use in making judgments about the identity of Φ 's?" For present purposes we may characterize the criteria for the truth of a judgment as those states of affairs that are . . . direct and noninductive evidence in favor of the truth of the judgment.²³

After presenting the BTEXperiment involving Brown and Robinson, he is quick to note that the lesson learned is limited simply to the existence of psychological

²²McMahan, *Ethics of Killing*, 66.

²³Sidney Shoemaker, *Self-Knowledge and Self-Identity* (Ithaca: Cornell University Press, 1963), 3.

criteria for judging that Brown is Brownson (the bodily recipient of the Brown's brain). That is to say that psychological properties are going to count as evidence for Brown being Brownson. Though Shoemaker appears to conflate the evidence question with the identity question, this is only appearance. He considers how a behaviorist will account for the psychological criterion indicated by the BT experiment. For the behaviorist, "all the properties of persons can be regarded as physical properties and . . . there is an important sense in which persons are material objects."²⁴ So, if psychological states can be reduced to physical properties, as with behaviorism or reductive materialism, the intuitions BT experiments generate can be endorsed by either. Likewise, a Cartesian could agree that Brown is Brownson (and Jack is John), and this would be explained as Brown's soul (which is tethered to Brown's brain somehow) being transferred over to what was formerly Robinson's body. Shoemaker correctly notes that both answers to the "in-what-does-the-identity-of- Φ -consist?" question are compatible with the lessons learned from the BT experiment. The most we learn from the experiment is that psychological properties serve as good evidence for the claims "Brown = Brownson" and "Jack = John."

But if Jack's psychological properties are to function as good evidence for re-identifying Jack, does not this tell us something about the kind of thing Jack is? In reply, good evidence E for x does not tell us anything about what x is, or what it means to be x . Rather we only know E counts as good evidence because we already know what it is to be an x . Some surface not being green, blue, or yellow, etc. all over may be taken as good evidence that it is red. But this does not tell us what it means to be red, and furthermore, we understand the iterated color negations as evidence for the surface's being red only because we already know what it is to be red. Being a person entails that one has the ability to act for an end, thus, if x acts for an end, that is good evidence that x is a person. But acting for an end is not what it is to be a person. The absence of brain waves is good evidence that a person is dead. But death is not identical to the absence of brain waves, because death does not simply mean the absence of brain waves.

Given the above reasons and what McMahan himself endorses, BT experiments should be taken to motivate the view that the persistence of one's psychological properties (namely, one's capacity for consciousness) is good evidence for identifying that person after he or she has undergone change. We do not have an answer to the "In-what-does-the-identity-of- Φ -consist" question.

Suppose, however, that the BT experiments are meant to tell us what kinds of things persons are. Can a hylomorphic account accommodate the intuitions generated by such experiments? To answer this question, some exposition of the

²⁴Ibid., 26.

hylomorphic account is in order; and following that, I argue that the account can accommodate such intuitions.

According to hylomorphism, a human person is an entity with a rational nature. We are entities with a nature that disposes us to have and exercise certain powers that develop along a determined trajectory. In fact, anything that exists has a nature—it exists as a kind of thing. A frog has a nature that disposes it to develop and exercise a capacity to leap five times its own body length (even when it is a tadpole), an eagle has a nature that disposes it to develop and exercise a capacity for flight (even when it is still unhatched), and a human being has a nature that disposes it to develop and exercise capacities for rational activity—even when she has not developed the brain to a point where the brain can immediately exercise rational activity (the latter claim is argued below). On a hylomorphic account, a nature confers a certain set of powers to a substance that realizes that nature and makes that substance be the kind of thing it is. David Oderberg notes, “It [a nature] is a *principle* in the sense of being that from which the identity of the substance is derived—that *by virtue of which* the substance is what it is.”²⁵

For readers who think that “nature” talk is spooky, consider how benign and concrete such talk is. Patrick Toner explains it best:

What is involved in claiming that humans and angels have a rational nature? The answer is that objects of both sorts fall under kinds which have instances that are naturally rational. Not all of the instances of these kinds may be able to act rationally, but all of them are naturally rational. Humans have a rational nature even after suffering a terrible blow to the head that renders them permanently vegetative. They have such a nature long before they develop any capacity for rational thought. Their nature explains their having the capacities they have (if, indeed, they do have them), it explains their developing those capacities (rather than others) when they do develop them, and it accounts for why we think it tragic for a baby to be born without an upper brain, and why we do not think it tragic when a tulip lacks an upper brain.²⁶

Even so, defining persons with reference only to capacities is troublesome if one sets a cut-off point for being a person. One anonymous reviewer notes that,

One can distinguish among *exercising a capacity well or poorly*, *actually exercising a capacity*, *possessing an immediately exercisable capacity* (that awaits a decision to exercise it), *possessing a readily exercisable capacity* (such as, once impediments are removed—the person wakes up, the fog

²⁵David Oderberg, *Real Essentialism*, (New York: Routledge, 2007), 66, emphasis original.

²⁶Patrick Toner, “Hylemorphic Animalism,” *Philosophical Studies* 155 (2011): 65–81, at 69. Toner uses the “e” spelling to conform with the epsilon spelling in Greek.

of alcohol wears off, and so forth), and *possessing a remote capacity* (such as, the ability to learn Icelandic after a lot of effort), and *possessing a very remote capacity* (such as, the zygote's ability to grow a brain and body that can learn Icelandic). To insist that any of these capacities except the last . . . divides the human person from the human non-person is arbitrary.²⁷

If we drop reference to natures and instead describe the human zygote as having a specifying power to develop rationality (a power that marks it out as being the kind of thing it is), we have no obvious reason for thinking that the human zygote is not a human person.

In addition to being arbitrary, defining persons with reference to capacities invites the misunderstanding that persons are *collections* or *aggregates* of powers. We are not: we are entities that have certain powers. But this of course assumes a particular picture of human persons. What is this picture?

Elizabeth Anscombe raised the question whether a rational parrot should be considered a rational animal.²⁸ At stake was whether hylomorphists could characterize human persons as rational animals. If other *distinct* things occupied that definition, then it is no longer an adequate definition of human persons. If rational parrots (“ranimals”) are also rational animals, “rational animal” would no longer be a species but a genus, and a specifying difference would have to appeal to some non-rational property like having wings versus having arms and legs. This would be an odd result indeed for a theory that set out to tell us what *we* are essentially—we are not arms and legs essentially.

The reply to this problem, at least by one hylomorphist, is as follows. David Oderberg opts to say that “any truly rational animal, *if* such were metaphysically possible, would still be human . . . even if it did not have the body plan or physical constitution we [sic] are familiar with, still if it were genuinely an animal and genuinely rational it would in fact be one of us.”²⁹ Having the specific body plan or genetic make-up would be, if there were such things as ranimals, an indication that this body/genetic structure we have is contingently related to being human. Such properties would be on par with race, height, and hair and skin color. Oderberg reasons that being a human person is a metaphysical category that includes biological content, e.g., a certain DNA. Of course, we are not identical to a string of DNA. Consequently, if we learned that there were creatures with a different body plan and genotype that yet possessed rationality, we would acquire a reason for thinking that ranimals are human.³⁰

²⁷Anonymous reviewer, “Report #2,” emphasis original.

²⁸Elizabeth Anscombe, “Human Essence,” in *Human Life, Action, and Ethics*, ed. Mary Geach and Luke Gormally (Exeter: Imprint Academic, 2005), 27–38.

²⁹Oderberg, *Real Essentialism*, 104, emphasis original.

³⁰Ibid., 105.

The point to draw from this response is that a substance's identity is a function primarily of metaphysical potencies, and in the case of human persons, rational potencies. What this means is that Jack is John in the BT experiments because of a continuity of the same potencies for rational activity. Since it is the same potency (not just the same kind of potency but the same token instance), it is the same instance of a rational nature that transfers from Jack at t_1 (pre-transplant) to John at t_2 (post-transplant). This explanation accounts for our intuitions on the BT cases.

Now this explanation looks very similar to the embodied mind view's explanation of the BT experiments. In what way does introducing the hylomorphic view underdetermine the justification for abortion? In a very illuminating article that touches on this question, David Hershenov notes that for Aquinas, the human animal "is a distinctive animal due to its capacities of intellect and will."³¹ Applying this account to BT experiments, Hershenov says, "If those capacities have gone with the cerebrum, then there is reason to think that the person has moved. What is left behind is a mindless animal that does not have the capacity for thought and action."³² Moreover, this explanation is compatible with the human fetus's being a rational animal:

In fact, it [the cerebrumless body] does not even have the potential to acquire or manifest such capacities as the normal fetus does. There is no natural development of the cerebrumless animal that will give rise to thought in the way there is with the developing fetus. If the soul provides the capacity for rational thought, and the person will be found where his or her soul is, then one has some reason to claim that the soul and the person have moved when the cerebrum does.³³

What Hershenov says suggests that the key difference between the hylomorphic and embodied-mind accounts is in regard to the metaphysical importance of *having* versus *exercising* a rational capacity. For the embodied-mind account, to be a person requires having an exercisable capacity for rational activity. For the hylomorphic account, the presence of that capacity itself, in this entity, needs explaining. The reason this entity has such capacities in the first place is that it has a rational nature. The nature of a substance *S* explains why *S* is the way it is, develops the way it does, and has the capacities it does. The difference between these two theories is important and requires further unpacking for at least one

³¹David Hershenov, "Soulless Organisms?: Hylomorphism vs. Animalism," *American Catholic Philosophical Quarterly* 85, no. 3 (2011): 465–82, at 469. See also Hershenov, "A Hylomorphic Account of Thought Experiments Concerning Personal Identity," *American Catholic Philosophical Quarterly* 82, no. 3 (2008): 481–502.

³²Hershenov, "Soulless Organisms," 469.

³³Ibid.

reason: one account holds, roughly, that the person is a rational *capacity*, the other an *entity* with a rational nature. What exactly is the difference here?

To illustrate the metaphysical importance of an explanation for why *S* is the way it is, Jonathan Lear entertains how Aristotle would explain the truth of the following subjunctive conditional: “If this young child were allowed to live in a supportive environment, it would grow into a mature, healthy adult.”³⁴ Whereas the modern biologist would agree that this conditional is true, the explanation would appeal to the child’s current material structure and that structure’s causal power. For Aristotle:

The fact that the child *would* in a healthy environment grow to a mature adult is grounded in the *actual* presence of form in the child. This form is the additional principle, responsible both for the already achieved material structure of the child and for the child’s future development.³⁵

Pages later, Lear succinctly notes, “The form really is the why of a thing.”³⁶ The person, for thehylomorphist, is not to be identified with a capacity, but as a rational entity: a certain kind of thing. And an entity’s developmental course is metaphysically revealing: it reveals what kind of thing the entity is (and was all along).

It is not my project to argue that Aristotle’s biology is superior to modern developmental biology. My use of Lear is to illustrate what explanatory role “nature” or “form” serves in Aristotle’s biology and metaphysics. However, there is one point to introduce here that recurs below when I argue that according to hylomorphism, human persons come into being prior to the exercise of their rational capacities.³⁷ The point is that it would be amazing for biological matter to produce the organismic complexity and rationality we see in adult persons. Recall what Timothy O’Connor thinks is a lot to accept: namely, the emergence of a whole individual substance from biological matter. Consider also Nida-Rumelin’s opening reflections on the emergence of consciousness and how puzzling this should be:

³⁴Jonathan Lear, *The Desire to Understand* (New York: Cambridge University Press, 1988), 22.

³⁵Ibid.

³⁶Ibid., 27, emphasis original.

³⁷Picking a fight with the modern biologist may not even be necessary or warranted. Father Nicanor Austriaco argues that systems biology and hylomorphism are mutually supporting. See “Immediate Hominization from a Systems Perspective,” *National Catholic Bioethics Quarterly* 4, no. 2 (2004): 719–38, at 722ff. Also, C. D. Broad has taught us long ago that induction presupposes that there are kinds of substances. Induction requires counting instances of a sort. (Broad, “The Relation between Induction and Probability—Part II,” *Mind* 29 (1920): 11–45, at 20ff.) Consequently, I reject the folk understanding that Aristotle’s biology and metaphysics are archaic or irrelevant.

At some point in the evolution of life on Earth some specific pieces of matter got arranged in a way that led to the occurrence of consciousness. At some “moment” deep in the past the first animals must have started experiencing. . . . The emergence of phenomenal consciousness in the evolution of life is astonishing. Upon reflection one will wonder how this radical change could possibly occur. The same may be said about the emergence of consciousness in an individual life.³⁸

For Aristotle, the emergence of rational powers is not amazing but is exactly what we should expect. The reason why this or that human being manifests rationality is because it is and always has been informed by a rational form.

The difference between hylomorphic and embodied-mind accounts of the person should not be understood as the hylomorphic account emphasizing bodily continuity and the embodied-mind account emphasizing psychological continuity. Both accounts recognize that to be a human person, rationality is essential. The difference is that for the hylomorphic account, why *S* is the way *S* is, and develops the way she develops, is metaphysically fundamental. *S*'s formal nature is the principle of change and development, and makes *S* be the kind of thing *S* is, i.e., a rational entity. The explanatory arrow moves from the thing's nature to the capacities it develops and has. Michael Loux explains,

Kinds . . . cannot be reduced to properties. It is, of course, true that in virtue of belonging to a kind, a concrete particular will possess many properties. . . . Aristotelians will concede all these facts; what they will deny is that a plant's belonging to the kind *geranium* can be reduced to or analyzed in terms of its possessing these properties. As they see things, it is because it belongs to the kind that it possesses these properties and not vice versa. The kinds to which concrete particulars belong represent unified ways of being that cannot be reduced to anything more basic.³⁹

Persons, on the hylomorphic view, are identical to this more basic “unified way of being.”

BT experiments do not rule against a hylomorphic account; instead, that account is consistent with our intuitions in such cases. The hylomorphist can agree with the embodied-mind account that Jack is John, and that the reason for thinking so is because there is a continuity of his psychological capacities. But sharing these convictions does not entail that persons do not come into existence

³⁸Martine Nida-Rumelin, “What about the Emergence of Consciousness Deserves Puzzlement?” in *Emergence in Science and Philosophy*, ed. Antonella Corradini and Timothy O'Connor (Routledge Studies in the Philosophy of Science, 2010): 149–62, at 149.

³⁹Michael Loux, *Metaphysics: A Contemporary Introduction* (London: Routledge, 1998), 119–20.

until they can exercise rational activity. For the hylomorphic theorist, development does not introduce other distinct entities as its species-specific powers become exercisable, nor does it destroy the immediately preceding entity.⁴⁰ There is nothing in the lessons learned from BT experiments to suggest otherwise.⁴¹

How does the hylomorphic account accommodate the dicephalic twin example? McMahan employs the dicephalic twin example in case readers think the BT-experiments are too far-fetched. I do not think McMahan needed to concede this point as head transplants have been performed on macaque monkeys.⁴² The actual case of the Hensel twins (Brittany and Abigail) illustrates that there can be two persons who share a body. With the Hensel twins, some of the vital organs are shared, some are not, and each twin controls a specific part of her body indicating a separate nervous system throughout the body. This last feature makes me reticent to say that the twins have the same body, but I return to that issue below. For now, assume a case where the twins have distinct heads, but share most vital organ systems.

The key difference between the dicephalic twin example and BT experiments is that in BT experiments there is one functional brain that inhabits two different bodies—with the intuition that there is only one person. The dicephalic twin case has us consider two functional brains in one body—with the intuition that there are two persons but only one body. The cases taken together are meant to confirm the same idea: namely, persons are psychological capacities rooted in functional brains.

The reply to the dicephalic case is the same for the BT experiments. If the human person is an animal with the capacities for intellect and will, conjoined twins will be two persons. As explained immediately above, however, the hylomorphic account is compatible with the view that the twins came into existence before the exercise of those capacities. Development of an entity does not create other entities. Neither experiment challenges the claim that either (i) persons are beings with a nature, or (ii) that nature is present before the exercise of the species-specific powers. There are challenges to (i) and (ii), but they do not originate in either thought experiment.

⁴⁰Although I find this sentence intuitively appealing, there is also a good argument supporting it. See Eric Olsen's *The Human Animal: Personal Identity without Psychology* (New York: Oxford University Press, 1997), ch. 4, especially 79–81.

⁴¹I imagine that this way of accounting for contemporary thought experiments in metaphysics would work for a number of others. For any thought experiment which exploits our intuitions on adult persons, the hylomorphic account can agree with the psychological account on almost every detail and possibly even in regard to the explanations for our intuitions (i.e., where the rational capacities go, there the person goes also). But hylomorphism can admit all of this while rejecting the idea that the development of an entity involves the coming-to-be of another distinct entity.

⁴²R. J. White et al., "Cephalic Exchange Transplantation in the Monkey," *Surgery* 70, no. 1 (1971): 135–9.

There are, however, deeper issues with the dicephalic case. For dicephalic twins, the intuition is the following:

(p) Abby and Brittany (*A* and *B*) are two persons, but only one organism.

To derive the conclusion that persons are embodied minds, we need the following premise—or something equivalent:

(e) If *A* and *B* are two persons, then persons are embodied minds.

From which we can conclude that:

(c) Persons are embodied minds.

The argument for (e) must be that whereas *A* and *B* share the same body (understood as the same vital organ system) they are different persons. The only difference between them is their distinct consciousness rooted in different functional brains. We are asked to conclude that because the only distinguishing features are distinct capacities for consciousness rooted in different functional brains, persons are capacities for consciousness rooted in functional brains. Does what *distinguishes* us from others tell us what we are essentially?

To answer this question, consider the mirror image of dicephalic cases: namely, brain fission cases. In the latter we are asked to entertain each half of one's cerebrum being transplanted into two different bodies—both bodies have the same psychology, initially at least. The intuition is that we now have two persons though the only distinguishing feature is that there are two bodies. Clearly, however, we do not infer that we are essentially bodies. The reason for not making this inference here is the same as the reason for not making it in the twin case. In both cases (dicephalic and fission cases) we are tasked with distinguishing one thing from another thing when both things share numerous attributes. Think of Max Black's famous example of the two symmetrical spheres.⁴³ The only properties that distinguish them are relational ones because we can easily suppose that they have the same non-relational properties in common such as material composition, atomic number, weight, size, and color. But few would suppose that the spheres are essentially constituted by the properties "being to the left of *x*" or "being to the right of *y*." What distinguishes *x* from *y* does not tell us what *x* and *y* are *essentially*. I refer to this as the difference fallacy.

Furthermore, there is an important asymmetry between the dicephalic case and the brain fission case. Presumably, the reason for thinking that there are two persons in the fission case is that, (P) one person cannot bi-locate; and the reason for thinking that there are two persons but only one organism in the dicephalic

⁴³Max Black, "The Identity of Indiscernibles," *Mind* 61, no. 242 (1952): 153–64, at 156ff.

case is that (Q) two organisms (of the same sort) cannot be coincident.⁴⁴ The asymmetry is that (Q) is ambiguous, and depending on how one understands “organism,” the intuitions on the dicephalic case will change. Claim (P) appears more secure, since persons are not universals capable of multiple instantiation.

When we say that two different organisms cannot be coincident, we should understand that in a way that does not entail that a pregnant woman and her unborn child are co-incident even though they are both located within the *body plan* of the mother. Body plan is not a reliable indicator for individuating organisms. Consequently, by “organism” we should mean something like a distinct set of organ systems. But even here, there are choices to make, for one can ask: which systems? Consider sensation.⁴⁵ Suppose Brittany stubs her toe and feels pain. Does Abby? If they both feel pain, I am inclined to think that they share aspects of their consciousness: they both have the same bodily sensations. If we want to preserve the intuition that they are distinct in terms of their consciousness, we should stipulate that they have entirely different nervous systems—when Brittany stubs her toe, Abby does not feel anything; and when Abby intends to move her right arm, Brittany cannot override or displace Abby’s intention and move it back. On this hypothesis, they would each have their own nervous system and would exert distinct control over specific parts of the body. Since, however, the nervous system extends *beyond* one’s brain, and on the embodied-mind account persons are functional brains (organisms are everything else), it appears that even on the embodied mind view, Abby and Brittany would be two organisms in addition to being two persons. They would be distinct in virtue of something additional to different functional brains. Since the embodied mind theorist needs to motivate the intuition that we have only one organism but two persons, the notion of organism has to be understood as, for example, a functional circulatory system. Reducing the notion of organism to this point, however, it is clear that hylomorphism can accept that there are two persons and one organism since it would not identify persons with an organism understood simply as a functional circulatory system.

If organism is understood in a way that delivers the judgment that the twins are two persons and one organism, we must understand it as simply a functional vital organ system—and an embodied-mind account of the person as including the brain *and* the network of nerves permeating the body, so as to keep sentience distinct. To this, the hylomorphic theorist could say, “Agreed, there are two persons and one organism. But my account of human persons clearly does not

⁴⁴David Wiggins, “On Being in the Same Place at the Same Time,” *Philosophical Review* 77, no. 1 (1968): 90–5.

⁴⁵I thank Mary Hayden Lemmons for encouraging me to think along the lines that follow in reply to the dicephalic case.

define ‘persons’ as organisms so understood. If the term ‘organism’ shows up at all in my account of persons, it is understood always as realizing a certain nature bearing species-specific powers. Since Abby and Brittany are entities (or organisms, if you prefer) *with a rational nature*, they each are persons. The fact that they share a vital organ system does not generate any counter-intuitive results against hylomorphism.” Consequently, the dicephalic twin case does not rule against hylomorphism.

Suppose for the moment that our intuitions that Brittany and Abby are two persons can tolerate some overlap of sentience. When they stub their toe, they both feel it; when Brittany undergoes vagal nerve stimulation for clinical depression, Abby, who is not clinically depressed, feels elated anyway. Although both will say “My toe hurts” they both won’t have identical consciousness in terms of the *experience* of pain. There is the pain, and there is the “I feel . . .” where the “I” is self-referring. On this understanding, we may tolerate overlapping content of sentience, but the experience of that content is person-centered; we still have the intuition that there are two persons even though each body shares one nervous system. The only remaining difference between them is that they have different heads/brains.

As explained above, this concession would not help, since it is still an instance of the difference fallacy. One cannot move from identifying properties that distinguish two things from one another to those properties’ being essential to what those things are. For the hylomorphic theory can hold just as well that Brittany and Abby are each entities with a capacity for intellect and will; the fact that they have different experiences is a function of the fact that they are different rational entities. The fact that they share a vital organ system is of no concern to the hylomorphic theorist. In any case, none of the results so far would entail that Abby and Brittany did not come into existence upon partial zygotic twinning.⁴⁶

To summarize the argument so far: a popular argument for the permissibility of abortion is to argue that unborn human beings are not persons. The notion of “person” is a psychological one according to which a person is identified with having a set of psychological capacities: i.e., self-consciousness. This position is motivated by appeal to BT experiments and the dicephalic twin example. Neither experiment, however, provides *exclusive* motivation for a psychological account. Rather, the lessons learned from such experiments are compatible with alternative accounts of the person: accounts which do not entail that unborn

⁴⁶For other replies to the dicephalic example, consult David Hershenov, “Countering the Appeal of the Psychological Approach to Personal Identity,” *Philosophy* 79 (2004): 447–74; Peter van Inwagen, *Material Beings* (Ithaca, NY: Cornell University Press, 1990) sec. 15; and S. Matthew Liao, “The Organism View Defended,” *The Monist* 89, no. 3: 334–50.

human beings are not persons. Consequently, one popular route by which to justify the permissibility of abortion suffers underdetermination. Since the cost of being wrong that the killing of unborn human beings is permissible is high and the justification for this claim suffers underdetermination, there is insufficient justification for the permissibility of abortion.⁴⁷

IV.

Objections. Even if the hylomorphic account is on par with the embodied-mind account in terms of accommodating our intuitions on thought experiments, McMahan offers an interesting argument that it is also on par in terms of when human persons come into existence. If McMahan's argument is correct, hylomorphic views of the person would not suggest that abortion is immoral. At stake is the second premise of my argument. Hylomorphic views, I shall argue, are at least compatible with persons coming into existence at conception. In this section I first explain McMahan's argument and then offer my replies.

McMahan supposes that there are "only two views about our nature and identity that support or . . . are compatible with the belief that we begin to exist at conception":⁴⁸ that we are organisms or that we are souls. The soul option could be understood in two ways as well. We could understand it as "an *aspect* of the body, a property, a mode of organization or arrangement of the constituent matter of the body."⁴⁹ He calls this the aspectival view and it emphasizes the present organization of a body. We may also understand the soul as reified:

⁴⁷The cost argument, as I call it, wishes to say that if it really is not the case that abortion is permissible, then (wrongly) thinking it is would involve killing innocent human persons. Because the wrongdoing involved is so grave, the arguments in favor of acting on the belief that it is permissible must be quite strong. The intuition is that the strength of my justification for P should be sensitive to the cost of being wrong that P. (The cost argument only applies to abortionists, and not to philosophers or even mothers since it focuses our attention on the strength of justification needed to act on our moral beliefs. Since philosophers and mothers do not perform abortions, the cost argument does not apply to them. One would need to import supplementary principles such as cooperation to extend the cost argument to other people.) There are quite a few technical details to fill in, but the intuition the cost argument exploits seems fairly uncontroversial. See Ted Lockhart, *Moral Uncertainty and its Consequences* (New York: Oxford University Press, 2000), 50–4; and Alexander A. Guerrero, "Don't Know Don't Kill: Moral Ignorance, Culpability and Caution," *Philosophical Studies* 136, no. 1 (2007): 56–97.

⁴⁸McMahan, *Ethics of Killing*, 8.

⁴⁹*Ibid.*, 11, emphasis original. McMahan's argument is inspired by Bernard Williams's treatment of hylomorphism in Williams, "Hylomorphism," *Oxford Studies in Ancient Philosophy*, vol. 4, ed. Michael Woods (New York: Oxford University Press, 1986), 189–99. For an extended rebuttal of Williams, see S. Marc Cohen, "Substance," in *A Companion to Aristotle*, ed. G. Anagnostopoulos (Oxford: Blackwell, 2009), 192–212.

namely, as an entity in its own right that organizes the body. The first premise of his argument can be read as follows.

- (1) If souls exist, either (i) they are aspects of the body, or (ii) they are something separate from the body—they are that which organizes the body.

McMahan thinks that on the aspectual view, when the body does not have the capacity to exercise rationality, the rational soul is not present. That is, if the soul is understood as the organizing principle of the body, “it determines how the body *is* organized, not how it might later be organized.”⁵⁰ Limiting the soul to doing only actual or present organizing is supported by McMahan’s own understanding of a potential for rationality and a capacity for rationality. McMahan grants that an early-stage fetus has the potential for rationality, but not the capacity for rationality, the latter of which requires “the actual presence of the structures causally involved in the exercise of rationality”: the “mere potential for rationality is not sufficient for the presence of a rational soul.”⁵¹ Thus,

- (2) If the rational soul is an aspect of the body, it is not present unless the body has exercisable rational capacities.

According to the aspectual view, then, early-term abortions would be permissible, since the entities killed are not persons.

If the notion of soul is reified, either the hylomorphic account collapses into a Cartesian one or it involves the strange view that in the human embryo there is a “microscopic homunculus.”⁵² McMahan thinks that the Cartesian view is false for independent reasons. Since I agree with McMahan in his assessment of Cartesianism, I consider only the idea that on the reified view, the hylomorphic theorist is stuck with a homunculus view or something equally obscure. McMahan seems to think that the homunculus view attaches to hylomorphism because in the reified view the soul is something separate from the body. But when the body does not have the capacities to exercise rationality, where is the soul? What evidence do we have for its presence in the embryonic and fetal body? To say that it is present prior to there being any demonstrable rational capacities must involve saying that there is a rational something in there waiting for the body to get up to speed. He states, “unless the rational soul is a non-physical substance [the Cartesian option], it is difficult to make sense of the claim that it is present, with the capacity for rationality, even before the apparent physical prerequisites for consciousness have been formed.”⁵³ McMahan

⁵⁰McMahan, *Ethics of Killing*, 13.

⁵¹Ibid.

⁵²Ibid., 14.

⁵³Ibid.

is right that on this understanding of the soul, its presence prior to the advent of self-consciousness is a bit obscure. How are we to understand the idea that persons can pre-exist their own capacity for self-consciousness? One would have to suppose, on McMahan's understanding, that in the embryo that does not exercise self-consciousness there is a self-conscious something. This is the homunculus option, and I will assume with McMahan that it is implausible. Singling out these premises, we have,

(3) If the soul is understood as reified, either (a) the hylomorphic view collapses into a Cartesian one, or (b) the view must countenance the strange idea of a rational homunculus in the human embryo.

(4) Neither 3(a) nor 3(b) is true.

(5) Therefore, the soul should not be understood as reified.⁵⁴

From (5) and (1) we can deduce that the aspectival view is the only plausible option. However, it permits early abortions since human fetuses do not have the capacity for rationality—and a potential for rationality is not enough to count as a person in McMahan's view. Therefore, the hylomorphic view does not underdetermine the psychological theorist's justification for abortion. This is an important argument, since even if hylomorphic and psychological accounts are on par with regard to certain thought experiments, if McMahan is right they are also on par regarding the justification for early abortion.

Before responding to this argument, there are some clarifications to make in regard to McMahan's presentation of hylomorphism. First, and probably foremost, McMahan notes that having a potential for rationality is not enough to count as a person. Hylomorphic accounts, however, hold that a potentiality is not a probabilistic term, but a term denoting a power. A potentiality for rationality is a power to develop exercisable rational abilities, not a *probability* of developing those abilities. For hylomorphism, having a power is indicative of the kind of substance an entity is.

Second, talk of the soul being in the body, or more basically of the body and soul being separate things, are not accurate ways to understand soul and body on the hylomorphic account. Certainly, soul and body can be separated by abstraction (i.e., in thought). But they are not distinct entities in the concrete substance. Consider the methane molecule which includes the compounds hydrogen and carbon.⁵⁵ We cannot take away hydrogen from a methane molecule *in re* without destroying the molecule—it would no longer be a methane

⁵⁴I thank an anonymous reviewer for providing an outline of McMahan's argument similar to the one presented here.

⁵⁵The example here is borrowed from Theodore Scaltsas, *Substances and Universals in Aristotle's Metaphysics* (Ithaca: Cornell University Press, 1994), 81ff.

molecule. As Scaltsas points out, “A substance cannot suffer in reality what it suffers in our representation of it when we abstract a property away from it.”⁵⁶ Shape can be abstracted away from a statue, but the statue cannot change by losing shape altogether—it would no longer be a statue. The reason properties cannot be separated *in re* is that in the hylomorphic picture, substances are unities, not aggregates of properties: “[t]he red poppy is a red *flower*, not red *color* plus such and such a shape, size, weight, and the like.”⁵⁷ Likewise for human persons: we are not capacities for rationality, plus embodied, bipedal, and the like. We are beings of a rational kind and we have, but are not identical with, certain capacities whose exercise is developmentally indexed. Soul and body are one *in re*, as hydrogen and carbon are one in methane.

In contrast, McMahan appears to understand the hylomorphic view as follows. If one were to separate the soul from the body in reality, identify the soul with the exercise of certain rational powers, and then ask when the soul enters into or is present in the body, one would expect empirical evidence for when the soul does so. After all, in such a view, the soul is identified with the exercise of certain powers that are empirically observable. The soul, in such a view, does not enter into the body until that body can exercise rationality. But in fact this is not the hylomorphic understanding of soul-body relation.

Following on the preceding comments, McMahan appears to understand that if the hylomorphic account reifies the soul as being that which organizes the entity, it then must be separate from the entity it informs, hence the Cartesian or homunculus consequence. This is not a correct understanding. Consider again the methane molecule. Hydrogen and carbon are atoms that constitute methane. Clearly, however, they are not separable from the methane molecule (in reality) without thereby destroying the molecule. In the hylomorphic account of persons, the substantial form is the principle of unity and is that in virtue of which “the person is a person, and that means the principle of life, of consciousness, and of rationality. . . . What gives the *person* life is precisely what makes the *person* sentient, and what makes him sentient is what makes him rational.”⁵⁸ The soul in hylomorphism is understood as a something, but it cannot be separated in reality from the thing which it informs without the thing’s undergoing a substantial change.

Fourth, in the hylomorphic view, the soul should not be understood as an aspect of the body, nor is it the way in which the body is organized. The soul (or substantial form) is not a property of something else, a state of the organism, or even a specifying power itself. Rather it makes one unified thing that has the

⁵⁶Ibid., 98.

⁵⁷Ibid., 101, emphasis original.

⁵⁸David Oderberg, *Real Essentialism*, 248, emphasis original.

specifying powers it does—it is that which makes the entity be a kind of thing with such powers. In the hylomorphic account, we are not identical to a power or capacity, nor are we aggregates of powers or capacities. Rather, we are rational entities that possess powers and capacities.

If these four corrections accurately represent hylomorphism, then none of McMahan's premises are true on that account. As just noted, the soul should not be understood either as an aspect of something else or as a separate entity in its own right. Consequently, (1) is not an exclusive disjunction according to hylomorphism. Since premises (2) and (3) presuppose that (1) is true, the argument fails.

None of these corrections entails that human persons come into existence at conception. What they do suggest is that McMahan's options outlined in premise (1) are not exhaustive. In what follows I argue that in hylomorphism it is at least consistent to hold that human persons come into existence upon successful conception (conception can occur but be unsuccessful as with molar pregnancies).

In relation to its account of persons, hylomorphism will make some initial distinctions. The first is between having or possessing a property/capacity/power and being a property/ capacity/power. A corollary of this distinction is a criterion that persons are not multiply instantiable: they cannot be exemplified. Second, we are not bundles or aggregates of powers, but it seems intelligible to say that we have such powers. A corollary of this distinction is that persons must be unities. The third distinction is between what we use to come to know that substance *S* is a kind of thing, *K*, and what it is that makes *S* be a *K*. Knowing that a substance is a rational entity may require observing its properties or operations. What follows if one does not observe rational operations is that one does not know that the substance is a rational entity. The fourth distinction is between what a thing is and what it does. To illustrate this distinction, David Wiggins has us consider something that moves, runs, or is white. He then asks, "*What is it that moves (or runs or is white)?*"⁵⁹ It is perfectly intelligible to say that something moves, but we want to know what that something is. Answers to the "what is it?" question refer to the kind of substance the thing is.

Peter Nichols challenges this last distinction. His basic point is fairly straightforward and plausible: there are two ways to interpret "does" in the said distinction. What a thing does could be what it is doing. In this reading it seems right to ask further, "what is it that is doing *x*?" What a thing does could be understood as what a thing is capable of doing. In this reading it seems right to say that what a substance is will be described with reference to these more basic

⁵⁹David Wiggins, *Sameness and Substance Renewed* (New York: Cambridge University Press, 2001), 21, emphasis original.

functional properties: that is, what the substance is capable of doing. Human persons are rational entities in the hylomorphic view, and, consistent with Nichols's argument, the term "rational" can be understood functionally as meaning able to perform rational operations. Nichols states, "appealing to dispositions or functions can adequately explain what something is."⁶⁰

Nichols is largely correct, at least in regard to his task of undercutting animalist arguments against psychological accounts. A hylomorphic account does not fall prey to Nichols's insights for at least two reasons. First, it may be true that what a substance is can be described or explained with reference to its functions, powers, and dispositions; but the latter do not exist on their own and fail to satisfy the independence criterion for substances.⁶¹ Functions or powers are understood as functions or powers of something—they are exemplifiable; substances are not. Assuming that Nichols is entirely correct, there is still room to distinguish between the functions a substance can perform and the substance that can perform those functions. The hylomorphic view of persons will identify persons with the substance, not with a functional part or an aggregate of such parts.

Second, there is a further issue of identifying which functions are necessary and sufficient for existing as a kind, *K*. For example, suppose we define a bulldozer functionally as a machine that is able to move dirt.⁶² The bulldozer could exist, however, without there being any dirt, therefore, without it exercising its prototypical function. The point seems applicable to substances as well. The existential dependence of a substance is not correlated with the exercise of its functions, even prototypical ones. Many things that go through developmental stages are not existentially dependent upon actualizing their prototypical functions. A baby eaglet clearly does not have the capacity to fly because it does not have functional wings; in another sense, it clearly does have that capacity since it is a bird. The same seems true for human persons. Persons do not existentially depend on actualizing a characteristic function though it may be necessary that for a substance, *S*, to be a person, *S* must possess in some fashion the capacity for self-consciousness.⁶³

⁶⁰Peter Nichols, "Substance Concepts and Personal Identity," *Philosophical Studies* 150 (2010): 255–70, at 265.

⁶¹Gary Rosenkrantz and Joshua Hoffman, "The Independence Criterion of Substance," *Philosophy and Phenomenological Research* 51, no. 4 (1991): 835–53.

⁶²The example is inspired by Scaltsas, *Substances and Universals*, 85.

⁶³Much less does it seem true that our value assessment of a thing track only its exercisable functions. Consider coming upon the eggs of an endangered species that, when it matures, is a beautiful creature that contributes significantly to the eco-system. It seems plausible both that destroying the eggs would destroy a member of that species and that it would be destroying something of value.

Furthermore, hylomorphism considers the following four desiderata that an account of human substances must meet. These include accounting for: (1) our individuality, though we share properties with other persons, (2) a person's substantial unity, we are not heaps or aggregates, even though we each have many parts,⁶⁴ (3) our identity through change, and (4) our characteristic way of being—we are not eagles or horses.

With these distinctions and desiderata in mind, human persons are (i) particular (ii) entities (iii) that have developmentally indexed causal powers, specifically rational ones, and (iv) they have a certain nature. Characteristic (ii) is meant to highlight that persons are things, not states, properties, or even powers. Characteristic (iv) is meant to highlight the fact that there is no bare thingness, but that things have characteristic states, properties, and powers.⁶⁵ Characteristic (iii) is meant to indicate that when an entity develops a species-specific power, no new entity comes into existence. To do so would identify the new entity with a power, and this would be a categorical error in hylomorphism.

With this background in mind, we may consider two basic reasons for thinking that a human entity with a rational nature comes into existence at conception. First, any organism that develops requires a principle or explanation for its unity and change. Second, this principle is what makes the substance be the kind of thing it is. If an entity can exercise or demonstrate rational abilities, this is only evidence for what kind of nature that substance is (and was) all along. I explain these in turn.

In a now classic study on these points, Stephen Heaney observes that for both Aquinas and Aristotle the soul is the “act of a physical organic body.”⁶⁶ Any unified organization is caused by a soul. Aquinas notes, “[t]he body therefore is formed by the action of the soul; and that is why Aristotle says (*De Anima* II) that the soul is the efficient cause of the body.”⁶⁷ Care should be exercised here in understanding the relation between soul and body. Properly understood, a body, qua organized thing, is already informed by a substantial form/soul. Since a soul does the organizing, an organized body is ensouled already. Furthermore, certain operations require the soul, since matter alone is causally inert in regard to organization and unity: “They [delayed ensoulment proponents] suggest that

⁶⁴For an especially good treatment of why this is a desiderata and how hylomorphism meets it, see Scaltsas, *Substances and Universals*, 59–96.

⁶⁵For the distinction between bare particular and hylomorphic views, consult Loux, *Metaphysics*; or Justin Broackes, “Substance,” *Proceedings of the Aristotelian Society* 106 (2005–06): 133–68.

⁶⁶Saint Thomas Aquinas, *Summa contra Gentiles Book II: Creation*, trans. James F. Anderson (Notre Dame: University of Notre Dame Press, 1975), q. 89, a. 3 (hereafter *S.C.G.*). Quoted in Stephen Heaney, “Aquinas and the Presence of the Human Rational Soul in the Early Embryo,” *The Thomist* 56 (1992): 24.

⁶⁷*Ibid.*, q. 89, a. 11.

we must *have* a human ontological individual before the soul comes. But it is, in fact, the soul which *makes* this matter to be a human ontological individual.⁶⁸ In support of this, recall Nida-Rumelin's reflections on the surprise we should have that material things are conscious at all. Matter alone does not have such a power.

Clearly, however, the human embryo does not manifest rational operations; and some have argued that because of this, the embryo has merely a nutritive soul—and only when the fetus develops to the point at which he or she can feel pain is the sensitive soul present, and so on. Regarding whether a succession of souls can account for human development, Heaney observes, “There is a lack of due proportion of producer to what is produced; a cause cannot be the cause of what is greater than itself. Thus a lower soul, which itself is incapable of higher operations, could not be responsible for the production of organs of higher operations.”⁶⁹ The presence of operative rational powers in an organism is caused by the organism's being informed by a rational form all along. Human persons, on this view, are entities that have a developmentally indexed power to be self-conscious.

But this view shifts away from the contemporary notion of a person as an *actual* self-conscious subject. How are we to understand soul/form on the hylomorphic view?

One helpful way to understand soul on this view is explained by Alexander Pruss. First, he considers David Armstrong's idea of a truthmaker, which is anything in reality that makes or grounds the truth of a proposition: “The truthmaker of the proposition that all ravens are black is the blackness of all actual ravens.”⁷⁰ Laws of nature are also propositions, and if a law is true, it is so in virtue of some aspect of reality's being so. Just as a truthmaker is an aspect of reality that makes a proposition true, a lawmaker is some aspect of reality that makes a law of nature true. Lawmakers are objective facts about or things in the world. Laws of nature considered as propositions do not exert causal power, but the lawmakers do. Aristotelian forms can be understood analogously to lawmakers. The form of a thing is that which explains why the behavior of a substance is *proto-typical* behavior, and it makes that substance be the kind of thing it is.

The form . . . is some real feature of the world that enters into a causal explanation of the pattern of activities that a thing, say Callias, exhibits and could exhibit. If Callias is a flower, Callias's form explains its blooming, its giving forth of pollen, its photosynthesis and so on. It is essential to note that this form is not identical with any abstract entity such as a

⁶⁸Heaney, “Aquinas and the Early Embryo,” 48, emphasis original.

⁶⁹Ibid., 26.

⁷⁰Alexander Pruss, “Aristotelian Forms and Laws of Nature,” *Analysis and Existence* 24 (2013): 115–32, at 119.

“type of activity” or a “pattern” understood as something abstract and mathematical. Rather, it is something concrete in the world.⁷¹

Forms are real, immanent features of an entity that ground (causal) explanation for why an entity behaves and develops in characteristic ways and has the potencies it does.⁷²

How does this understanding ofhylomorphism make any headway towards replying to McMahan’s argument? The principal point of disagreement is McMahan’s assumption that the “mere” potential for rationality does not indicate the presence of a rational soul. This is a false assumption according to hylomorphism. On Heaney’s understanding, when an entity can exercise rational abilities is not when the rational soul informs the human entity. Rather, the human entity would not be a human entity that can develop those rational powers without being informed by a rational soul. Now, persons are not to be identified with souls or forms, since those items are separable in thought.⁷³ Rather, human persons are *entities* of a certain sort, namely, entities informed by a rational form. The fact that *this* organism (pointing to a human embryo) has the potentiality for rationality indicates that it has a rational soul, because an entity’s specifying powers are a function of its form/soul. A potentiality for rationality is a specifying power and is present only because the thing is informed by a rational soul—the soul is a lawmaker for the entity’s having such powers.⁷⁴ A baby eaglet has the potency to fly but cannot exercise that power, but it is still a (young) eagle. Likewise, a human embryo qua human, has the potency to reason, but cannot exercise that power. The transition from having the potentiality for rationality to exercising rationality is a distinction in the development of one entity, not grounds for distinguishing between different entities. Consequently, it is plausible to maintain that if persons are *entities with a rational nature*, you and I come into existence prior to the *exercise* of our rational powers. The

⁷¹Ibid., 124.

⁷²For more on these points, see Michael C. Rea, “Hylomorphism Reconditioned,” *Philosophical Perspectives: Metaphysics* 25 (2011): 341–59, at 350ff; Devin Henry, “Embryological Models in Ancient Philosophy,” *Phronesis* 50, no. 1 (2005): 1–42; and Devin Henry, “Organismal Natures,” *Apeiron* 41, no. 3 (2008): 47–74.

⁷³One could suppose that the soul can be separable in reality, but hylomorphic theorists who accept this possibility also hold that it would not be the person in this separated state.

⁷⁴In describing the view here as a thing being informed by a rational form, I invite misunderstanding because it suggests that the thing bears the property of being informed by *x*. As urged above, substances are unities—there is no bare *thing* that receives or is informed by a form as if the form is just another property of the thing. To preserve the idea that substances are unities, hylomorphic theorists speak accurately, though more cryptically, of the form making the thing be what the thing is. And “making” should be understood not on the model of efficient causation, but of formal.

exercise of rational capacities merely supplies evidence for what kind of entity we were all along.

V.

Conclusions and Limitations. The intuition is strong that being a person has something to do with being self-conscious. E. J. Lowe is representative of this intuition:

When I define the self as a being that can identify itself as the necessarily unique subject of certain thoughts and experiences, I mean that it is a logically necessary condition of selfhood that a self should know, of any concurrent conscious thought or experience which is its own, that it is its own thought or experience and no one else's.⁷⁵

Michael Tooley claims, "An organism possesses a serious right to life only if it possesses the *concept of a self* as a continuing subject of experiences and other mental states, and *believes* that it is itself such a continuing entity."⁷⁶

I do not share this intuition, mainly because of obvious counterexamples. There is strong evidence suggesting that some autistic children and adults do not have a developed self-consciousness.⁷⁷ Older autistic adults who happen to develop self-consciousness, describe that they had to learn how to ascribe mental states to others *and* to oneself. Clearly, autistic people are persons.

In any case, the hylomorphic account tries to countenance this intuition without breaking apart the unity of the person. Persons are not identical to the *self-conscious* entity, but they are the *entity* that is or can be self-conscious. A state of being self-conscious is not a perduring subject, and a capacity for self-consciousness is exemplifiable.⁷⁸ Self-consciousness is better understood not as an entity but as a power to think reflexively, an ability to think about one's own beliefs and desires. Reifying self-consciousness into an entity is a categorical error.

Accepting hylomorphism does not come with an obvious intuitive cost. It is not obviously counter-intuitive to say that patients in a persistent vegetative state are severely disabled persons (not non-persons) and that pre-conscious human embryos are persons with potential (not potential persons). There also seem to be *comparatively* few theoretical costs. Hylomorphism countenances

⁷⁵E. J. Lowe, "Substance and Selfhood," *Philosophy* 66, no. 255 (1991): 81–99, at 82.

⁷⁶Michael Tooley, "Abortion and Infanticide," *Philosophy and Public Affairs* 2, no. 1 (1972): 37–65, at 44, emphasis added.

⁷⁷Uta Frith and Francesca Happé, "Theory of Mind and Self-Consciousness: What Is It Like to be Autistic?" *Mind and Language* 14, no. 1 (1999): 1–22.

⁷⁸See Patrick Toner, "On Substance," *American Catholic Philosophical Quarterly* 84, no. 1 (2010): 25–48, esp. 26–7.

the importance of rationality in its account of human persons without falling prey to the too-many-thinkers problem. That problem says, roughly, that if we accept the exclusive disjunction between person and animal it would seem to follow that the animal thinks the same thoughts and has the same memories as the person: they share the same brain, nervous system, and sensory systems, after all. Eric Olsen writes, “Whatever makes your thoughts *yours* [the person’s] would seem to make them *its* [the animal’s] as well, and the same goes for actions.”⁷⁹ If the two, person and animal, are different entities and both can claim the same thoughts, we have one too many thinkers. Hylomorphism takes Lowe’s intuition seriously but avoids the too-many-thinkers problem because the development of a rational entity does not introduce another distinct entity.

My argument does have one important limitation. Though it is popular to argue for the permissibility of abortion by motivating a psychological account of the person, it is not at all the only way to argue for abortion. There is considerable variation here. For example, there are different intuitions regarding what counts as a person. Whereas McMahan thinks that persons come into being when they are able to be conscious, other accounts of the person are stricter: for example, Tooley’s requires self-consciousness and even having certain doxastic states. Furthermore, David DeGrazia and McMahan’s so-called second-tier justification for abortion relies on a time-relative interest account of wrongdoing.⁸⁰ I do not address either route here. My limited and less ambitious task has been to undercut one justification for early abortion.⁸¹

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⁷⁹Eric Olsen, “Human People or Human Animals?” *Philosophical Studies* 80 (1995): 159–81, at 165, emphasis original. Although there are sophisticated replies to this problem, it ultimately survives them. See Steinvor Tholl Arnadottir, “Functionalism and Thinking Animals,” *Philosophical Studies* 147, no. 3 (2010): 347–54. Although the argument cannot be outlined here, Arnadottir thinks that hylomorphism dodges both the too-many-thinkers problem for psychological accounts, and the corpse problem for animalist accounts.

⁸⁰See, for example, DeGrazia, *Human Identity in Bioethics*, 189–92, and 279–94; and McMahan *Ethics of Killing*, 232–40, and 269–80. Contact the author for a list of works that address these arguments.

⁸¹I would like to thank Matt O’Brien, Stephen Heaney, three anonymous reviewers, and the editors of *ACPQ* for very helpful comments on previous drafts of this paper.