The links between metaphysical questions and ethical questions have been a matter of some dispute since at least the eighteenth century, when Hume declared in his *Treatise on Human Nature* that one cannot derive an “ought” from an “is.” At the beginning of the twentieth century, in his *Principia Ethica*, G. E. Moore wrote of the “naturalistic fallacy,” which some interpreted as making a point similar to Hume’s: ethical truths cannot be derived from metaphysical truths. Recent scholarship, by contrast, has recognized the profound connections between metaphysical and moral questions, and these links are particularly strong when considering questions of personal identity and bioethics.

Four rival theories of diachronic personal identity are described in a recent article by Bertha Alvarez Manninen (“The Metaphysical Foundations of Reproductive Ethics,” *Journal of Applied Philosophy*, May 2009). These accounts include the genetic account,¹ the animalism account (which is also sometimes called the

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¹Manninen critiques what she takes to be Pope John Paul II’s “genetic” view when she writes, “Certainly there is new biological human life present at conception. But adherents of the genetic account of personal identity maintain that conception is when a new human being begins to exist who is numerically identical to (that is to say, the same individual as) a future human being. One implication of this view is that the conditions of numerical personal identity are comprised in our possession of a unique genetic code. Furthermore, the view holds that each individual began to exist whenever his or her unique genetic code first came into existence. This transpires after the fertilization of an ovum by a sperm, when syngamy occurs and the genetic material of both gametes fuse to form a new and distinct genetic code.” I do not believe the passage in *Evangelium vitae* (n. 60) on which Manninen rests her interpretation is seeking to address the question of rival accounts of diachronic personal identity. John Paul II may be read as saying simply that a new human life has begun at conception, a human life that is distinct from both the father and the mother, and his reason for thinking that such a life is distinct from both is that there is a distinct program or genetic code that orients the new life to have individual characteristics including height,
organism account), the psychological account, and the embodied mind account, but she could have also mentioned other accounts. In a short essay like this, it is impossible adequately describe, let alone trace, the bioethical implications of rival views of personal identity, but recent books have taken on this challenge, such as David DeGrazia’s *Human Identity and Bioethics* \(^2\) and Patrick Lee and Robert P. George’s *Body-Self Dualism in Contemporary Ethics and Politics*. \(^3\)

Lee and George defend the basic, equal dignity of every human being on the basis that human beings are essentially rational animals throughout all stages of their lives. This view of human identity—sometimes called animalism or the organism view—is often used in defenses of the value of all human life. \(^4\) Having defended this view of identity, George and Lee then argue that all rational animals are persons, that is, beings that have dignity and deserve to be treated as members of the moral community, so they conclude that all human beings are persons throughout every stage of physiological development.

Michael Tooley objects to arguments such as these. \(^5\) Tooley imagines a variety of examples which are meant to point to a conclusion diametrically opposite to that of Lee and George—we are not rational animals. Imagine you had to choose between the following two scenarios. In scenario one, your body is completely destroyed except for your upper brain, which is transplanted into another body, allowing a psychological continuity of your consciousness, thoughts, beliefs, desires, and plans. In scenario two, your upper brain is completely destroyed but the rest of your body remains. Which scenario would you choose? Most people would preserve their upper brain. Tooley’s conclusion is that this intuition is explained by the fact that we are not essentially rational animals or human organisms, since we would prefer to have the organism with which we are associated destroyed rather than have our upper brain destroyed.

Tooley also imagines cases of transplantation of upper brains among various bodies. Let’s say the upper brain of Mary is switched with the upper brain of John, so that all Mary’s beliefs, memories, personality traits, and psychological capacities are now associated with John’s body, and all John’s beliefs, memories, personality traits, intelligence, and health that are distinct from both father and mother. In other words, the implicit appeal to genetic programming is not used to establish the identity conditions of a human person through time but rather to establish the difference in identity between father, mother, and the newly conceived human life, which in all likelihood will remain one human being, but which could through twinning develop into two.


\(^4\)There may be differences among these views, but for purposes for this argument, the differences do not seem relevant to objections which will be raised to the general view.

and psychological capacities are now associated with Mary’s body. If the organism view were correct, reasons Tooley, we would have to say that after transplantation, the body originally belonging to Mary is still really Mary, even though this body is now associated with the beliefs, memories, and personality traits of John. The truth, in Tooley’s view, is that Mary now has a different animal body, the body formerly used by John. So what makes Mary remain Mary is the continuity of her psychological characteristics over time in whatever body she may find herself. Thus, it is incorrect to say that we are essentially rational animals or human organisms.

Tooley’s first example confuses the question of identity with the question of what we have a greater interest in preserving. If you had to choose between having your entire arm cut off leaving just a thumb reattached where you arm formerly was or having a thumb cut off leaving the rest of your arm intact, which would you choose? Well, obviously you would choose to have just a finger cut off, but it hardly follows from that preference that your thumb is not really a part of your body or that your body does not (now) include your finger. In other words, your thumb is no less a part of you than your arm, but it is a less important part of you in terms of your overall well being. Similarly, if faced with a choice between having the rest of your body destroyed while preserving your brain or having your brain destroyed while preserving the rest of your body, you would choose the brain over the rest of the body, but it does not necessarily follow that “I” am simply my brain. The intuition that we would choose our brains might reflect a judgment about the relative value of various parts of our bodies, rather than a judgment about what essentially constitutes us. The rest of your body is no less a part of you (indeed, it is the greater part of you in terms of mass) than your brain, even though your brain (in virtue of its role in your thinking) is the more important part of you. Similarly, most people would prefer both legs destroyed rather than both lungs, even though the legs are a greater part of us in terms of mass. Tooley’s objection trades on a confusion between what is more valuable to you and what is you, a confusion identified several years ago by Derek Parfit. In “A Hylomorphic Account of Thought Experiments concerning Personal Identity” (American Catholic Philosophical Quarterly, Summer 2008), David Hershenov describes (but does not endorse) this response: “We are misled into thinking that we would be transplanted because of a mistaken belief that identity is what matters to us in our survival.” We can account for the choice of brain over the rest of the body without assuming a psychological view of personal identity.

Further, the transplant objection may not undermine the view that we are rational animals, for perhaps we can construe the brain, or even the upper brain, as the smallest possible reduction of a human organism. Eric Olson suggests this

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⁷American Catholic Philosophical Quarterly 82.3: 483. Hershenov believes that a hylomorphic view “offers a way to capture the belief that we are organisms and yet that we go with our transplanted brain and could survive inorganic part replacement” (491). This promising possibility merits further consideration.
The interpretation of the transplant case: “The surgeons do not move your cerebrum from one animal to another in the transplant story. Rather, one animal has its parts cut away until it is the size of a cerebrum. It is then moved across the room and given a new complement of parts. The animal into which your cerebrum is implanted then presumably ceases to exist.” In this interpretation of the transplant objection, we can grant the intuition that “we” go with our brains, so to speak, but still maintain that we are rational animals, albeit in the transplant case radically mutilated animals missing most of our bodies. In other words, if we were to assume that the smallest possible reduction of a human being would be to the size of the upper brain, then if we moved the upper brain, it would still be a human organism that we move, albeit a radically impaired organism until implanted in another body whose organs would then take over the functions formerly exercised the previous body.

David Hershenov points out another difficulty for Tooley’s view that we are our brains:

So if we are to understand the person as the subject minimally sufficient for thought, perhaps then by analogy, we should understand the organism as the subject minimally sufficient for life. But does this mean then that the organism only derivatively possesses feet and kidneys? That’s preposterous. The organism is much larger than the brain, it is just that it can be reduced in size to the bare minimum essential for life. Thus it would be a mistake to confuse the organism with the smallest possible form that it can take. Have McMahan and Persson made a similar mistake in regards to the person? If so, a person could then be six feet and two hundred pounds, though that same person could be reduced in size to just essential cerebral parts.9

Even if an organism could be radically reduced in size, it does not follow that prior to its reduction it is “really” or in essence only the smallest size it could possibly be reduced to and survive.

The view that you really are just your cerebrum also leads to bizarre and counter-intuitive conclusions, however. If this were true, as Hershenov points out, “the average adult person is not really somewhere between 5 and 6 feet tall, 100 and 200 pounds. Instead, most people consist of just a few inches and pounds of gray matter. Taking this claim literally means that a person couldn’t have pains in his feet.”10 If we are nothing but our brains, then we never see persons (unless we’re present for brain surgery), we could not distinguish one person from another by appearance even if we did see persons, and we never kiss or have been kissed by a person.

Tooley makes use of far-fetched cases, cases which are not only impossible to accomplish now but may never be physically possible. But such fantasy examples

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10Ibid., 31.
also cause trouble for the other main accounts of personal identity. Imagine cases in which there is fission of the brain itself, so that one hemisphere of your cerebrum goes to one body and the other hemisphere goes to another body. Eric Olson points out the troubles that arise from such examples:

The two recipients—call them Lefty and Righty—will each be psychologically continuous with you. The Psychological Approach as I have stated it implies that any future being who is psychologically continuous with you must be you. It follows that you are Lefty and also that you are Righty. But that cannot be: Lefty and Righty are two, and one thing cannot be numerically identical with two things. Suppose Lefty is hungry at a time when Righty isn’t. If you are Lefty, you are hungry at that time. If you are Righty, you aren’t. If you are Lefty and Righty, you are both hungry and not hungry at once: a contradiction.\(^\text{11}\)

The same problem arises for the embodied mind account, since the embodied mind is found in two hemispheres which could, if we admit bizarre examples, be transplanted into different bodies giving rise to Lefty and Righty.\(^\text{12}\)

Advocates of the psychological continuity view or the embodied mind view will characteristically respond to cases of fission by adding a “non-branching” clause to their account, such that their view is true so long as there is no branching of the psychological continuity between two (or more) different recipients. But if adding a non-branching clause is not excluded as ad hoc, then there is no reason that advocates of the rational animal view cannot also add a non-branching clause with respect to the branching of the brain from the rest of the body of the human animal. So the move that shores up the psychological continuity view ends up also shoring up the rational animal view against brain transplant examples.

The non-branching view has additional troubles, as Olson notes:

This proposal, the “non-branching view,” has the surprising consequence that if your brain is divided, you will survive if only one half is preserved, but you will die if both halves are. That is just the opposite of what most of us expect: if your survival depends on the functioning of your brain (because that is what underlies psychological continuity), then the more of that organ we preserve, the greater ought to be your chance of surviving. In fact, the non-branching view implies you would perish if one of your hemispheres were transplanted and the other left in place: you can survive hemispherectomy only if the excised hemisphere is immediately destroyed.\(^\text{13}\)

\(^{11}\) Olson, “Personal Identity.”

\(^{12}\) The defender of the psychological approach could say at this point is that a person \(X\) is identical to a later person \(Y\) just in case \(Y\) is fully psychologically continuous with \(X\). This doesn’t seem ad hoc; and it would allow the defender of the psychological approach to deny that you are both Lefty and Righty (you wouldn’t be identical to either one, since neither is fully psychologically continuous with you). However, in the brain fission cases as imagined, both Lefty and Righty are both fully psychologically continuous with you, so this response does not alleviate the problem.

\(^{13}\) Olson, “Personal Identity.”
This means that if one of your hemispheres were successfully implanted, and you did not know what happened to the other hemisphere, then you would not know whether or not you survived, even though you (in some sense) would be the one thinking about the question of whether you survived. “Faced with the prospect of having one of your hemispheres transplanted, there would seem to be no reason to prefer that the other be destroyed. Most of us would rather have both preserved, even if they go into different heads. Yet on the non-branching view that is to prefer death over continued existence.”

Adding a clause about branching does not, in other words, solve the problems raised by fission.

One could say, of course, that severing the distinct hemispheres of the brain and placing each half in another organism is physically impossible and so irrelevant. One could also say that our intuitions about severing the distinct hemispheres of the brain and placing each half in another organism are irrelevant. Since we have never actually encountered such bizarre transformations, we might claim that “our ignorance about what actually happens in these cases jeopardizes the theoretical relevance of fission scenarios.” But if we are going to rule out far-fetched counter-examples to the psychological continuity account on the basis of physical impossibility or on the basis of the unreliability of our intuitions about bizarre cases, then we equally have to rule out examples, such as cerebrum switches between human organisms, that gave rise to the psychological continuity view in the first place.

Jeff McMahan raises an objection to the view that we are rational animals that does not rely on science fiction. In cases of dicephalic conjoined twins, one body is shared by two heads. Consider, for example, dicephalic twins R and S. They are two persons, but only one shared organism. It is possible for one to die but the other survive. Let’s say Twin R gets struck in the head with a baseball flying at high velocity, but Twin S does not. Twin R dies from the injury but the animal organism—now connected only to Twin S—continues to live. This case shows that Twin R was not a rational animal, because the rational animal survived her death. Since we are the same kind of being as Twin R, we are also not rational animals.

Matthew Liao notes a problem with this argument:

In response to the Dicephalus Case, it may be said that there are in fact two organisms, although they may not be completely independent organisms. In most cases of dicephalus, it is possible to identify functioning organs for two organisms. For example, in McMahan’s example . . . , each twin has her own

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14Ibid.


stomach and heart; they have distinct brainstems and distinct spines that are only joined at the hips; and they have partially distinct organs that are united. This suggests that in fact, there are two organisms here although they are not fully independent organisms.\textsuperscript{17}

Imagination can suggest cases where conjoined twins are even more closely intertwined than are Twins R and S, but even these cases suggest that “there are two capacities for coordinating various life processes, and that therefore, there are two organisms.”\textsuperscript{18}

Liao also lodges a powerful objection to the psychological account of personal identity, probably the chief rival of the animalist view. Liao notes that dissociative identity disorder, or multiple personality disorder, with sixteen different sets of memories and experiences would constitute sixteen different persons making use of or associated with one human organism. But then to cure such a disorder—by destroying the various extra personalities—would be the same morally as killing fifteen human persons.\textsuperscript{19} However, in alleviating multiple personality disorder, a doctor cures, not kills. So our personal identity is not merely a matter of memories, beliefs, and desires. The upshot of these discussions is that Tooley’s fantasy transplant examples need not undermine the view that we are rational animals, but real-life examples do undermine the psychological continuity view of personal identity.

\textbf{Christopher Kaczor, Ph.D.}
Loyola Marymount University
Los Angeles, California

\textsuperscript{17}S. Matthew Liao, “The Organism View Defended,” \textit{Monist} 89.3 (July 2006): 340.

\textsuperscript{18}Ibid., 341.

\textsuperscript{19}Ibid., 342.