

The Transplant Intuition as an Argument for the Biological Approach

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Abstract

One of the primary objections to the biological approach revolves around what is known as the transplant intuition. That is, the allegedly widely shared intuition that if we had our cerebrum transplanted into a different body, we would be transferred to that body along with our cerebrum. Drawing upon our understanding of brain death, this paper argues that either (1) the transplant intuition should be rejected, and the biological approach has the advantage of being consistent with that rejection; or (2) the psychological approach, the biological approach's main rival, cannot hold one of its main appeals: its ability to account for what matters in survival.

Keywords: Personal identity, Brain death, Transplant intuition, Biological approach, Psychological approach.

1. Introduction

The persistence problem of personal identity can be formulated as follows: “If a person x exists at one time and something y exists at another time, under what possible circumstances is it the case that x is y ?” (Olson 2017). Broadly speaking, two main perspectives offer different answers to this question. The biological approach claims that x is y only if there is some sort of biological continuity between them. Conversely, the psychological approach posits that x is y only if there is some sort of psychological relation between them.¹

One of the key arguments in the debate between the biological and psychological approaches regarding the persistence problem centers around what Olson labeled as the “transplant intuition” (Olson 1997: 42-44). According to this, it is commonly intuited that if our cerebrum were transplanted into a new body, we would be transferred to the new body along with our cerebrum, as the recipient of the cerebrum transplant would be psychologically continuous with us. The

¹ With “psychological approach” I am referring to all the theories that claim that some kind of mental relation (e.g., psychological continuity, narrative continuity, sameness of consciousness, ...) is necessary and (fission cases aside) sufficient for us to persist. In other terms, it includes all the theories that are committed to hold the transplant intuition.

psychological approach aligns with this intuition. However, the biological approach is at odds with it. Our cerebrum is merely an organ, and when an organ is detached from the rest of an animal's body, the animal does not go along with that organ. Therefore, according to the biological approach, if our cerebrum were transplanted into a new body, we would remain within our old cerebrumless body. Given the wide acceptance of the transplant intuition and its misalignment with the biological approach, the latter is considered highly counterintuitive.

This objection is not fatal as a highly counterintuitive theory can still be true. However, the transplant intuition is widely regarded as one of the most significant objections to the biological approach (DeGrazia 2005: 51-54; Olson 1997 42-44; Snowdon, 2014: 16). I intend to demonstrate that the transplant intuition should be viewed in the opposite light: it is incompatible with our knowledge of brain death. Given that our understanding of brain death is more reliable than an intuition derived from a far-fetched thought experiment, we should reject the transplant intuition. The biological approach will thus enjoy the advantage of being consistent with that rejection. Furthermore, as I will demonstrate, the supporter of the psychological approach can only counter my argument by paying a significant price. To uphold the transplant intuition, they must abandon one of the key attractions of the psychological approach: its alleged ability to account for what matters in survival (Beck 2015; Schechtman 1996: 51). Thus, the supporter of the psychological approach must face a dilemma: either they concede that the transplant intuition ought to be rejected, or they accept that the psychological approach cannot account for what matters in survival.

I will lay out my argument in a straightforward manner, reserving the discussion of potential objections for the last section. The article will be structured as follows. Section 2 will introduce the transplant intuition. Section 3 will present my argument against it. Section 4 will analyze a possible response from proponents of the psychological approach. In Section 5 I will highlight how this response undermines the psychological approach's ability to account for what matters in survival. Finally, in Section 6, I will address objections to my argument.

2. The Transplant Intuition

The transplant intuition was popularized by Olson when he was exploring the arguments for the psychological approach and against his animalist account (Olson 1997: 42-44). The intuition emerges from a specific thought experiment, and it might be useful to present the thought experiment in detail as follows:

Prince and Cobbler are two human persons. A surgeon sedates them and ties each of them to an operating table. The surgeon then removes their cerebrums from their heads, but leaves their brainstems in their place, so that their bodies remain biologically alive. After that, he destroys Cobbler's cerebrum and places Prince's cerebrum into Cobbler's head. Two human beings result from this. One of them, called *Brainy*, has Cobbler's physical appearance but has Prince's character, memories, beliefs, and so on. The other one, called *Brainless*, has Prince's physical appearance, but shows no higher mental properties at all, as he seems

to be in the sort of persistent vegetative state that sometimes results from massive brain damage. What happens to Prince in this scenario?²

Most people would say that Prince has indeed been transferred to Cobbler's body along with his cerebrum, thereby surviving as Brainy. The pull to say so is what Olson calls the "transplant intuition". And both the psychological approach and the biological approach acknowledge the widespread presence of this transplant intuition (see, e.g., Baker 2000; Beck 2014; DeGrazia 2005; Parfit 1984; Shoemaker 1984; Swinburne 1984). The fact that this intuition is so widely shared allows the psychological approach to use it as support for one of its main arguments against the biological approach.

The psychological approach is consistent with the transplant intuition. While there are various theories within the psychological approach, they all are defined by the claim that certain mental relation is necessary and (if we are not dealing with fission cases) sufficient for us to persist. Since the thought experiment above states that only Brainy is mentally related to Prince in the appropriate way, it follows immediately that, according to the psychological approach, Brainy is Prince. Just as the transplant intuition claims.

The biological approach, in contrast, is inconsistent with the transplant intuition.³ In cases where an animal donates an organ, such as a kidney, to another animal, the donor is not transferred to the recipient's body alongside the organ. While the recipient gains the organ and the donor loses it, their identities are not affected. That the organ in question is the cerebrum does not change this fact (Olson 2007: 41). Consequently, according to the biological approach, in the thought experiment outlined above, Prince would be Brainless, and Cobbler would be Brainy, who would have been the recipient of a cerebrum transplant. This contradicts the transplant intuition. And as the transplant intuition is widely spread, the biological approach faces a significant challenge: it is highly counter-intuitive.

As previously mentioned in the introduction, this is not a decisive argument against the biological approach. And there are many other ways to argue for the biological approach (or against the psychological approach) that put this argument into question (see, e.g., DeGrazia 2005: 51-54; Snowdon 2014: Chpts. 10 and 11; Wagner 2016). In the next section, I intend to introduce a novel line of reasoning in support of the biological approach: the transplant intuition is inconsistent with what we think about brain death. And considering that our thoughts

² People who are not familiar with the debate on brain and cerebrum transplants in personal identity might wonder why I talk about a cerebrum transplant and not about a whole brain transplant. The reason for this is that a whole brain transplant would be consistent both with the psychological approach and the biological approach, and thus could not be used in an argument against any of those positions (see Olson 1997: 44-46; van Inwagen 1990: 177-79). Olson has changed his mind since 1997 and now thinks that, according to the biological approach, you would not go with your brain in the case of a whole brain (Olson 2016b: 299). I disagree with him, although explaining why would take us far from our present discussion. In any case, I will be arguing against the psychological approach, and the psychological approach is consistent with both whole brain transplants and cerebrum transplants. Thus, my argument will be damaging to the psychological approach regardless of whether a whole brain transplant is consistent with the biological approach or not.

³ Madden would be an exception to this claim, as he tries to show how the biological approach can be made compatible with the transplant intuition (see Madden 2016).

about brain death are better supported than an intuition derived from a far-fetched thought experiment, this discrepancy tips the balance in favor of the biological approach.

3. The Transplant Intuition Vs. The Brain Death Criterion

The argument I am advocating against the psychological approach originates from an observation that, despite its apparent clarity, has been overlooked in the existing literature. This argument centers around the contradiction between the transplant intuition and a fact derived from our understanding of brain death. And considering that a fact derived from what we know about brain death is more reliable than an intuition regarding a far-fetched thought experiment, we should favor the former over the latter.

Before explaining why the transplant intuition contradicts a fact derived from what we think about brain death, it is important to clarify the meaning of brain death. The concept of brain death is relatively recent. Before the twentieth century, death was determined based on cardiopulmonary criteria. However, advancements in medical technology, such as mechanical ventilation, created challenges in applying the cardiopulmonary standard, as bodily functions could be artificially sustained (Sarbey 2016: 743-44). This situation created a need for a new death criterion, and thus, during the sixties and seventies of the past century, several individuals and committees published articles and reports advocating for a new death criterion based on brain functioning. Subsequently, several countries began enacting legislation to allow medical doctors to use a new criterion to determine the death of a patient: the irreversible cessation of functioning of the entire brain, including the brainstem. We can refer to this criterion as the “whole-brain standard” to the question of how to determine if someone is dead. And surprisingly, despite its recent origins, there is a remarkable near-consensus all over the world, at least legally speaking, about the whole-brain standard (DeGrazia 2005: 121). For this reason, when I talk about brain death, I am specifically referring to the whole-brain standard.

The whole-brain standard has implications for the transplant intuition. According to this standard, someone is dead only if their entire brain, including their brainstem, has ceased to function. Therefore, as long as the brainstem remains functional, they are still alive. In the thought experiment mentioned earlier, this implies that both Cobbler and Prince are still alive within their respective bodies after the surgeon removes their cerebrums from their heads.⁴ If they are alive within their bodies, it becomes difficult to accept the notion that placing Prince’s cerebrum into Cobbler’s head will alter this fact: Cobbler would not die just because he has received an organ transplant; and Prince would not suddenly switch bodies just because one of his previous organs, which was no longer connected to his body, has been transplanted into a new body (Olson 2016a: 150).

Still, someone could argue that, if Cobbler were not alive, Prince would indeed swap bodies if his cerebrum were transplanted into Cobbler’s body. I believe that he would not. But even if that were true, we cannot ignore what happens in the scenario at hand. In the transplant intuition scenario, as it has been laid out, it would be impossible for Prince to swap bodies, because Cobbler is still alive and thus Cobbler’s body is unavailable to host Prince. Given this consideration, rather

⁴ See an objection related to this in §5.2.

than a body-swapping scenario, it seems that both Prince and Cobbler would continue to be within their respective bodies even after the cerebrum transplant. Consequently, it seems to follow that Prince would be Brainless, and not Brainy as the transplant intuition leads us to believe. And thus, the transplant intuition contradicts a fact derived from what we think about brain death.

To present the case as clearly as possible, we can introduce what I call the Unavailable Body Argument against the transplant intuition:

- (UB1) According to what we think about brain death, Prince and Cobbler would be alive within their respective bodies if any part of their brain, including their brainstem, is still functioning within their bodies.
- (UB2) In the transplant intuition, Prince and Cobbler have a functioning brainstem within their bodies after the surgeon removes their cerebrums from their heads.

Therefore,

- (C1) Prince and Cobbler are still alive within their respective bodies after the surgeon removes their cerebrums from their heads.
- (UB3) If Prince and Cobbler are still alive within their respective bodies after the surgeon removes their cerebrums from their heads, Cobbler would not die just because Prince's cerebrum is placed into Cobbler's head.
- (UB4) If Cobbler would not die just because Prince's cerebrum is placed into Cobbler's head, Prince and Cobbler would still be within their respective original bodies after the cerebrum transplant.
- (UB5) The fact that Prince and Cobbler would still be within their respective original bodies after the cerebrum transplant is a fact derived from what we think about brain death.
- (UB6) The transplant intuition contradicts the fact that Prince and Cobbler would still be within their respective original bodies after the cerebrum transplant.

Therefore,

- (C2) The transplant intuition contradicts a fact derived from what we think about brain death.

If the Unavailable Body Argument is right, then the transplant intuition is at odds with a fact derived from what we think about brain death. And considering the greater reliability of what we think about brain death compared to the transplant intuition, we should favor the former over the latter. Therefore, the Unavailable Body Argument will tip the balance in favor of the biological approach: being consistent with the transplant intuition will count against the psychological approach, while being consistent with its rejection will count in favor of the biological approach.

4. In Defense of the Transplant Intuition

Undoubtedly, the supporters of the psychological approach may raise objections to the Unavailable Body Argument. And there might be several ways to do so. However, for now, I will focus on just one possible objection that the psychological approach can put forward: that the whole argument conflates the concepts of "human being" and "person". The reason why I will focus on this possible objection is that, as I will show, the supporter of the psychological approach is committed to this

response. Interestingly, it creates an equally serious problem for the psychological approach, as it casts doubts on one of its main appeals: its alleged ability to account for what matters in survival. Thus, the supporter of the psychological approach will need to face a harsh dilemma: either they acknowledge the success of the Unavailable Body Argument and, consequently, reject the transplant intuition; or they give up one of their theory's main appeals.

As I was saying, the supporter of the psychological approach may argue that the argument overlooks the distinction between the concepts of "human being" and "person". Human beings are defined by their biological properties. Meanwhile, following Locke, the psychological approach holds that a person is a being that has certain mental properties, such as self-consciousness (Locke 1975: 335). In our daily life, every person that we know is attached to a certain human being. However, according to the psychological approach, the identity conditions of persons and human beings are different. Human beings persist over time due to certain biological processes. However, persons persist over time thanks to the continuity and connectedness of their mental life. Thus, human beings and the persons attached to them can come apart. The human being that a certain person is attached to can still survive even if the person has ceased to exist. And the human being that a certain person is attached to can be dead even if the person is still around.

Having this in mind, the supporter of the psychological approach would claim that the names "Prince" and "Cobbler", as used in the Unavailable Body Argument, are ambiguous. They could either denote two human beings or two persons. If these names are understood as referring to two human beings, then UB1 is true (if we accept the whole brain standard). But UB6 would be false because the transplant intuition is about the identity conditions of persons, and as such, it does not contradict anything related to the identity conditions of human beings. That is, according to the transplant intuition, the human beings previously denoted by the names "Prince" and "Cobbler" might still be alive within their respective original bodies after the cerebrum transplant. What the transplant intuition claim is that, regardless of that fact, those bodies would now be attached to a different person.

Alternatively, if the names "Prince" and "Cobbler" are understood as denoting two persons, then UB6 is true. The transplant intuition implies that the persons denoted by the names "Prince" and "Cobbler" would not be attached to their original bodies anymore. However, UB1 would be false, as brain death is a biological concept that is not relevant to the existence of persons. That is, Prince's and Cobbler's bodies might have a functioning brainstem, thus being alive. But if their cerebrums are not within their bodies anymore, then the persons Prince and Cobbler are not within their bodies either, because there would be no mental properties at all related to those bodies.

5. The Problem with This Response

As I mentioned earlier, this response by the supporter of the psychological approach is not really an option they can take. The psychological approach is committed to responding to the Unavailable Body Argument in this way. That is, the distinction between human beings and persons, the latter being defined in mental terms, is central to the psychological approach. And according to this distinction, it follows that what we know about brain death is not related to the persistence

conditions of persons; and that the transplant intuition does not contradict anything regarding the persistence conditions of human beings. However, the problem with this response is that it puts at risk what can be considered one of the main appeals of the psychological approach: its alleged ability to account for what matters in survival. Let's see what I mean.

As it is well known, Locke claimed that person is a forensic term (Locke 1975: 346). With this, he meant that personal identity, despite being a metaphysical topic, was deeply entangled with some ethical issues. One of these issues that the psychological approach has paid a lot of attention to is what matters in survival (see, e.g., Shoemaker 2008: 23-115). It seems that what matters to us when we talk about survival is whether we ourselves will be there in the future. In other words, it seems that what matters in survival is personal identity. And the fact that the psychological approach can (allegedly) account for this intuitive link between personal identity and survival has traditionally been considered one of its greatest strengths (see, e.g., Beck 2015; Schechtman 1996: 51; although there may be legitimate doubts that the psychological approach can indeed account for survival and the other ethical issues related to personal identity, see Shoemaker 2019).

According to the supporter of the psychological approach, what matters in survival is not just being there in the future. When we think about "being there", we are picturing ourselves as being able to experience our being there. Being there in the future, but not being able to have conscious experiences, would not grant us what matters in survival (see, e.g., Martin 1998). Thus, it seems that what matters in survival is not just personal identity, but also our mental life. Because the psychological approach claims that personal identity depends on the continuity and connectedness of our mental life, it seems to be able to account for the intuitive link between personal identity and what matters in survival.

The distinction between human beings and persons is in line with this account of the link between personal identity and what matters in survival.⁵ If what matters in survival is our mental life, and the persistence conditions of persons depend on our mental life as well, then it follows that there is a connection between what matters in survival and our existence as persons. However, our daily experience seems to contradict this line of reasoning. If we pay attention to our daily experience, we do not seem to believe that our persistence over time depends on our mental life, and neither do we believe that our mental life is what matters in survival. This will be clearer if we focus on the more realistic part of the transplant intuition scenario.

Imagine that after removing their cerebrums from their head, the surgeon destroys Prince's and Cobbler's cerebrums, thus leaving Prince and Cobbler in a persistent vegetative state (hereafter, PVS). They would have no mental properties at all and thus, accepting the distinction between human beings and persons, their bodies might still be living human beings, but Prince and Cobbler would have ceased to be persons. Moreover, the supporters of the psychological approach are

⁵ It might be worth noting that Parfit holds the psychological approach and rejects that personal identity is what matters in survival. However, his view is not an exception to my claims about the psychological approach, because Parfit also accounts for the intuitive link between personal identity and what matters. He explains that even if personal identity is not really what matters, it is an understandable confusion, because personal identity is tightly linked to psychological continuity, and psychological continuity is what matters (Parfit 1984: 261-66).

likely to claim not only that Prince and Cobbler would have ceased to be persons. They would claim that Prince and Cobbler would have ceased to exist at all and that the living human beings that would still be at the operating table would be nothing more than the abandoned “husks” of persons who would be already gone (Schechtman 2014: 155).

However, coming back to a real-life scenario, we do not seem to believe that patients in a PVS are already gone. They are not sent to the morgue. Patients in a PVS are kept alive in hospital rooms, where they receive visits from their relatives, who still care for them as if they were alive (Schechtman 2014: 105). Even if some of them claim that their loved ones “are already gone”, that claim should be interpreted metaphorically. If they really thought that their relatives were already gone, they would not be treating them in the way they do. Thus, our experience with patients in a PVS seems to contradict the psychological approach’s claim that personal identity depends on our mental life.

Moreover, our experience with patients in a PVS also contradicts the psychological approach’s claim that what matters in survival is our mental life. If someone entered a hospital and ended the biological life of all the patients in a PVS, few (if any) of their relatives would shrug and say that there is no difference because their mother (or father, or dear auntie Mary) were already gone. And surely, the police would not let the killer go. The only commiseration that the killer could expect would come from supporters of the psychological approach that were so blinded by their theory that they could not see the atrocity of the killer’s crimes. Thus, it seems that our mind is not what matters in survival, because patients in a PVS do not have any sign of mental life, but their survival still matters.

Considering this, it is no surprise that there is a remarkable consensus regarding the whole-brain approach because it acknowledges that patients in a PVS are still there, thus justifying our ethical concerns. In this regard, we can note the oddness that this reply to the Unavailable Body Argument brings into the psychological approach: to keep a widely spread intuition regarding a far-fetched thought experiment, it decides to endorse a highly controversial claim regarding something that happens thousands of times every day all around the world (i.e., the claim that people in a PVS are gone). If anything, this decision would give the biological approach the advantage of being the more intuitive position in the debate on personal identity.

Consequently, it seems that to respond to the Unavailable Body Argument, the supporter of the psychological approach is committed to accepting that the psychological approach cannot account for the link between personal identity and what matters in survival. As paying this price to solve the problem is a bit too much, the supporter of the psychological approach must decide what they prefer. They can either reject the transplant intuition and adjust their theories so that they are not committed to agreeing with the transplant, or they can keep the transplant intuition and accept that the psychological approach cannot account for what matters in survival.

6. Some Final Objections

I have claimed that the supporter of the psychological approach must face a dilemma. They can either reject the transplant intuition or acknowledge that the psychological approach cannot account for what matters in survival. However,

there are some objections to my claims that I have left aside to ease the argument. Now that the argument has been laid out, it is time to address these objections.

6.1. An Objection Related to the Transfer Intuition

Someone could claim that the Unavailable Body Argument misses the point, as it focuses on a very specific thought experiment. That is, it may be true that the transplant intuition is misleading when it comes to transplanting a cerebrum into the body of a patient in a PVS. However, other thought experiments could support the transplant intuition and they would not be affected by the Unavailable Body Argument. For example, you could transplant a cerebrum into a robotic body, or into a newly created fully functional cerebrumless body that is kept without any sign of biological activity until it receives the cerebrum transplant. In those cases, the bodies receiving the transplant would not be alive until they receive the cerebrum. Thus, these experiments would not be affected by my argument.

This may be true. However, it does not diminish the importance of what I have achieved here. First, because just as Olson's argument against brain transplant cases urged the psychological approach to retreat from brain transplant cases to cerebrum transplant cases (see Footnote 2 above), the Unavailable Body Argument urges them to retreat to even further-fetched thought experiments to defend the transplant intuition. And these thought experiments may bring additional worries (e.g., would a human cerebrum work seamlessly within a robotic body? Is it conceivable to have a fully functional cerebrumless body that nonetheless has no biological activity?).

But more importantly, the relevance of what I have done here rests on the fact that there is a significant difference between Olson's argument and the Unavailable Body Argument. Olson showed that the transplant intuition, as it arises from brain transplant experiments, is compatible both with the psychological approach and the biological approach. This implies that the supporter of the psychological approach cannot use brain transplant thought experiments to support their position. However, it does not imply that the psychological approach is wrong in any aspect. On the other hand, the Unavailable Body Argument damages the psychological approach, because in principle it is committed to hold the transplant intuition even in the case when the body receiving the transplant is a patient in a PVS. And as I have attempted to show, if the psychological approach insists on keeping the transplant intuition in this scenario, then it cannot account for what matters. Thus, even if the supporter of the psychological approach can still turn to other thought experiments to support their position, they still have some work to do to deal with the consequences of the Unavailable Body Argument.

6.2. An Objection Related to a Fission Scenario

It could also be claimed that the rationale behind the Unavailable Body Argument would create a fission problem for the biological approach. That is, from what I have said, it seems to follow that any functioning part of a brain is enough to keep an organism alive. But if the functioning of some part of the brain is enough to keep someone alive, splitting a brain into two functioning parts would create two possible candidates to be the original organism. That is precisely what happens in

my thought experiment. When the surgeon removes the cerebrum from Prince's head, his brain is split into two functioning parts, the cerebrum, and the brainstem. Why should we assume that the original organism stays where one of these functioning parts (the brainstem) is and not where the other (the cerebrum) is?

To respond to this objection, it is important to note first that fission cases are not a big deal for the biological approach. There are puzzling cases in which you cannot say what has happened to the original organism. And the biological approach does not need to give a response to all of them (Olson 2016b: 297). Fission cases may be one of those. In this regard, we could just claim that the thought experiment above presents a case where it is not possible to say what has happened to the original human animal. Thus, even if my thought experiment presents a fission problem for the biological approach, this problem is not that relevant.

That being said, for the biological approach there are at least a couple of ways to address this specific case. On the one hand, the biological approach can deny that there is a fission case at all. For this thought experiment to count as a fission case for the biological approach, Prince should split into two different organisms. And that is not what happens. There is a living organism that has a brainstem, and then there is the detached cerebrum, which is not an organism, but just a part of an organ. Therefore, there is no fission. This line of reasoning is favored by Olson, but rejected by Madden, who claims that a detached cerebrum "preserves a high number of capacities for activity characteristic of the human organism kind" and thus, should be considered as an organism (Madden 2016: 8).

On the other hand, the biological approach can rely on something like Nozick's closest continuer theory (Nozick 1981: 29-37). According to Nozick's theory, X at time t_2 is identical to Y at time t_1 only if X is Y's closest continuer and X is close enough to Y. Biologically speaking, Brainless would be Prince's closest continuer even if Prince's cerebrum counted as an organism. Thus, the fission problem disappears. Prince would be within his original body because that would be his closest continuer. Madden argues in favor of this position, although Olson would probably reject it (Madden 2016: 14-16; Olson 2016b: 300-301).

Both responses are mutually exclusive, as the latter claims that the cerebrum is an organism, while the former denies it. And there could be any number of reasons to prefer one over the other. However, as I said above, fission cases do not pose a significant obstacle for proponents of the biological approach. Thus, the resolution of this specific dispute is not within the scope of this article. Showing the existence of two viable avenues to address this problem satisfactorily will be enough for our present purposes.

6.3. Some Objections Related to What Matters in Survival

Finally, someone could say that my claims about what matters in survival are not convincing. When the supporters of the psychological approach talk about what matters in survival, they are not referring to the concern that we may feel, from a third-person point of view, towards someone in a PVS. They are referring to the special type of concern that we can only feel towards ourselves (i.e., self-concern), as it shows for example when we think about our future well-being (see, e.g., Martin 1998). And that is absent in the case of patients in a PVS. That is, we cannot care about our future well-being as patients in a PVS because if we were in that situation, we would lack the capacity to feel anything. And thus, anything

that may happen to our bodies if we were in a PVS would not matter to us (McMahan 2002: 446). Or at most, it would only matter to us to the same extent that what may happen to our bodies once we cease to exist will matter to us.

Leaving aside the issue of whether what matters in survival is only a matter of self-concern, it is false that we cannot feel self-concerned for our future as patients in a PVS. Or that we would only care for our future as patients in a PVS just as we care about the future of our dead bodies. In fact, there can be self-concerned reasons to prefer both dying over remaining alive in a PVS; and remaining alive in a PVS over dying.

Regarding the latter, consider first a woman whose main objective in life is to have a baby. She has unsuccessfully been trying to get pregnant for years. Now, she finally is. Unfortunately, when she is only three months into her pregnancy, she is diagnosed with very aggressive brain cancer: she will die in the following weeks unless she gets surgery. However, the operation will leave her in a PVS. If she decides to die, her baby will not survive either. But if she gets surgery, she will still be able to deliver a healthy baby in a few months. Obviously, she would rather be able to raise her baby. But given the situation, it seems reasonable that she would prefer to stay alive in a PVS. And not only because she wants her baby to live, but also because she may feel fulfilled knowing that she will finally have a baby. That is, she may decide to be kept alive in a PVS for purely self-concerned reasons.

Second, imagine that a reliable source tells you that later this year you are going to receive a Nobel Prize. However, you are also diagnosed with very aggressive brain cancer. As you know, Nobel Prizes are not awarded posthumously. Thus, if you let cancer kill you, you will be replaced by another brilliant human being (who, by the way, you happen to despise). However, if you get brain surgery and remain alive in a PVS, you will still get the Nobel Prize. Again, it would be better if you could experience the moment when you get the award. But considering your options, it seems reasonable that you would prefer to be kept alive in a PVS. And not only because that will greatly impact your legacy, but also because you already enjoy the fact that, in a few months, you will get the prize. That is, you could decide to survive in a PVS because you are self-concerned about what will happen to you in the future.

Finally, regarding the former, imagine that you are kidnapped and offered two possible outcomes to your situation. They can either put you in a PVS and rape you while you are still alive, or they can kill you and rape you afterward. Certainly, neither option is desirable. However, it seems to me that being raped while you are in a PVS is worse than being raped once you are dead. Thus, you may decide to be killed to avoid being raped while you are still alive. That is, you may decide to die to avoid something terrible happening to you, just as you may rather die than be tortured endlessly.

Someone could argue that these cases, at most, only prove that we could feel slightly self-concerned for our future as patients in PVS. But this self-concern would be insignificant compared to the self-concern that we usually feel towards our future well-being when we think about our future as self-conscious persons.

I agree. However, that is hardly a way out for the supporter of the psychological approach. First, because it acknowledges that our existence as persons is not the only thing that matters in survival. And if our existence as persons is not the only thing that matters, then the psychological approach does not account for what matters. It only accounts for some part of what matters. And even if that is

something, it is not a very strong reason to prefer the psychological approach over the biological approach.

But, more importantly, what this response shows is that “what matters in survival” is not a clear and well-defined notion. When the supporter of the psychological approach claims that they can account for what matters in survival, they are assuming that there is a single thing that matters, or at least a package of things that always go together. In this regard, for the psychological approach, given a future situation, either you will be there, and thus the situation will grant you what matters in survival, or you will not be there, and thus the situation will not grant you what matters in survival.

However, acknowledging that existing as patients in a PVS may grant us something of what matters in survival implies that there is not a single thing that matters, neither there is a package of things that always go together. And once the supporter of the psychological approach acknowledges that they are up for a more rigorous analysis of the notion of “what matters in survival”. And what this analysis will show, I think, is that countless things may matter in survival to different people and that these things do not have an obvious connection to our existence as persons (cf. Bugnon and Nida-Rümelin 2019; see also Shoemaker 2007). For example, what matters in survival may be different from the first-person perspective and the third-person perspective, as my discussion on PVS cases shows. It may also be different depending on what kind of future you expect, as the pregnant woman, the Noble Prize nominee, and the kidnapping examples indicate. And ultimately, it may also be different depending on your values and beliefs. You may think that your genes are the most important part of who you are so that a clone could grant you what matters in survival even if the clone were not psychologically related to you. Alternatively, you may think that you have a soul and that not even your own healthy and conscious body could grant you what matters in survival if you lost your soul.

Finally, some could claim that even if the psychological approach cannot account for what matters, the biological approach cannot do it either. And thus, this is no reason to prefer to former over the latter. However, the biological approach has never intended to account for what matters in survival. Accounting for what matters in survival was one of the psychological approach’s strengths, and thus not being able to do so anymore is a serious problem for the psychological approach. But the biological approach claims that the metaphysical questions of personal identity must be kept separated from its ethical significance (Olson 1997: 66-70). Thus, not being able to account for what matters is irrelevant to the biological approach’s appeal.

7. Conclusions

In this paper, I presented the Unavailable Body Argument to show that the transplant intuition contradicts a fact derived from what we know about brain death. If this argument is right, considering that what we know about brain death is more reliable than an intuition regarding a far-fetched thought experiment, it implies that we should reject the transplant intuition. And because the psychological approach holds the transplant intuition, the Unavailable Body Argument tips the balance in favor of the biological approach. I have also shown that the psychological approach is committed to responding to the Unavailable Body Argument in a way that threatens its alleged ability to account for the link between personal

identity and what matters in survival. Because, to the supporter of the psychological approach this response is at least as damaging as rejecting the transplant intuition, the supporter of the psychological approach must face a harsh dilemma: Either (1) they reject the transplant intuition and adjust their theory so that it is not committed to holding the transplant intuition. Or (2) they dig their heels, hold the transplant intuition, and accept that the psychological approach cannot account for what matters in survival.⁶

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