

Futures of Value and the Destruction of Human Embryos

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I Introduction

Many people are strongly opposed to the intentional destruction of human embryos, whether it be for purposes scientific, reproductive, or other.¹ And it is not uncommon for such people to argue against the destruction of human embryos by invoking the claim that the destruction of human embryos is morally on par with killing the following humans: (A) the standard infant, (B) the suicidal teenager, (C) the temporarily comatose individual, and (D) the standard adult. I argue here that this claim is false and do so as follows. First, I provide an account of the *prima facie* wrongness of killing individuals (A) – (D). Briefly, I contend that individuals (A) – (D) have a certain property in common, that of having a future of value.² An individual who has a future

1 By 'embryo' I mean the prefoetal product of conception from implantation through the eighth week of development.

2 'Future of value' is borrowed from Don Marquis (see D. Marquis, 'An Argument

of value has the potential to (i) value goods of consciousness when he will (or would) experience them and (ii) do so as a psychologically continuous individual. And depriving an individual of a future of value is *prima facie* wrong. Killing an individual deprives him of a future of value. Thus, killing an individual who has a future of value is *prima facie* wrong. Since individuals (A) – (D) have futures of value, killing them is *prima facie* wrong.

Second, I argue that, given this account of the *prima facie* wrongness of killing individuals (A) – (D), the destruction of individual (E), the standard embryo, is *not* morally on par with killing individuals (A) – (D). For, unlike individuals (A) – (D), the standard embryo does not have a future of value. Specifically, I argue that having a future of value involves having the second-order potential for psychological continuity, a potential that individuals (A) – (D) have but that individual (E) does not.³ For possessing the second-order potential for psychological continuity requires the possession of psychological states, something individuals (A) – (D) have but that individual (E) lacks. Hence, individual (E) does not share with individuals (A) – (D) the property of having a future of value and, in turn, is not deprived of one when it is killed. Thus, given my proposed account of the *prima facie* wrongness of killing individuals (A) – (D), killing individual (E) is not morally on par with killing individuals (A) – (D).

Before moving on from this introduction, it should be noted that the view I defend here is the product of numerous philosophical influences, notably those of Don Marquis and Jeff McMahan. Indeed, the work of both Marquis and McMahan is heavily leaned upon in what follows. Accordingly, I should make it clear that, though I agree with much of what they have to say on the issue of the moral status of killing, I disagree with them in numerous and significant ways. Regarding Marquis, the ways in which I disagree with him will be made abundantly clear as the paper develops. And regarding McMahan, whereas I accept what he refers to as the ‘Harm-Based’ account of the *prima facie* wrongness

that Abortion is Immoral,’ in *Ethics in Practice*, H. LaFollette, ed. (Oxford: Blackwell Publishing 2002), 83–94. My analysis of ‘future of value’ differs from Marquis’s in that mine includes (ii) while Marquis’s does not.

3 As will be discussed in greater detail below, first-order potential involves two temporally successive potential-actual relations: the potential to actualize in a certain way and, once actualized thus, the potential to actualize in yet another way. Second-order potential involves the second of the two temporally successive potential-actual relations constitutive of first-order potential. This construal of first- and second-order potential is developed by Aristotle in Book Nine of the *Metaphysics*.

of killing, he rejects it.⁴ This alone constitutes a significant difference between McMahan's position on the moral status of destroying human embryos and the position I defend here.

II Don Marquis's Future of Value Argument Against Killing Individuals (A) – (E)

Given that my account of the prima facie wrongness of killing individuals (A) – (D) relies, to an extent, on Marquis's account of the prima facie wrongness of killing individuals (A) – (E), I will begin with a summary of it.⁵

Most people agree that it is prima facie wrong to kill the following humans: (A) the standard infant, (B) the suicidal teenager, (C) the temporarily comatose individual, and (D) the standard adult. If we can determine what property or set of properties the possession of which is sufficient to make killing such individuals prima facie wrong, we can then determine whether individual (E), the standard embryo, shares that property or set of properties with them. If it does, then just as it is prima facie wrong to kill individuals (A) – (D), so it is prima facie wrong to destroy individual (E).

According to Marquis, the property the possession of which is sufficient to make killing individuals (A) – (D) prima facie wrong is having a future of value. By 'future' Marquis means the life one will live if one lives out one's natural life span.⁶ And by 'future of value' Marquis means a future constituted by goods of consciousness, goods that one will (or would) value when one will (or would) experience them.⁷ These goods of consciousness consist of 'items toward which we have a pro attitude,' examples of which include the pursuit of goals, aesthetic enjoyments, friendships, intellectual pursuits, and physical pleasures.⁸

4 See Jeff McMahan, *The Ethics of Killing: Problems at the Margins of Life* (Oxford: Oxford University Press 2002), 270ff.

5 Marquis, 'An Argument that Abortion is Immoral,' 86-7. For a more comprehensive summary of Marquis's argument against abortion — as well as a formidable rebuttal to it — see David Boonin, *A Defense of Abortion* (Cambridge: Cambridge University Press 2003), 56-85. I have borrowed an element of Boonin's style of presentation, specifically, the use of capital letters to refer to the individuals in question.

6 Marquis, 'An Argument that Abortion is Immoral,' 86

7 Marquis, 'An Argument that Abortion is Immoral,' 87

8 Marquis, 'An Argument that Abortion is Immoral,' 87

When individuals (A) – (D) are killed, they are deprived of a future of value. This, in turn, imposes a misfortune on them, and imposing a misfortune on such individuals is *prima facie* wrong. Thus, it is *prima facie* wrong to kill individuals (A) – (D).

Having established what property the possession of which is sufficient to make killing individuals (A) – (D) *prima facie* wrong, Marquis then considers whether individual (E), the standard embryo, possesses this property. He maintains that it does — specifically, he claims that as late as two weeks after conception, the standard embryo has a future of value — and, consequently, that killing the standard embryo is *prima facie* wrong.⁹

Before moving on, two things about Marquis's argument for the *prima facie* wrongness of killing individuals (A) – (E) should be noted.

First, it grounds the wrongness of killing individuals (A) – (E) in what it does to *them* (individuals (A) – (E)) rather than what it does to, say, their loved ones or even their killer(s). Accordingly, it appeals to what will be referred to here as the *egoistic* (strictly self-regarding) concern or interest of individuals (A) – (E).¹⁰

Second, Marquis's argument rests upon a particular *psychological* account of what's valuable about the continued existence of individuals (A) – (E). For Marquis contends that the *prima facie* wrongness of killing these individuals is rooted in the value of their futures, and the value of their futures is cashed out in terms of what's valuable to them when they will (or would) live out their natural life spans. And what's valuable to them when they will (or would) live out their natural life spans, Marquis submits, is the *experiencing* and *valuing* of goods of *consciousness*. Thus, on Marquis's view, what's valuable to these individu-

9 Marquis, 'An Argument that Abortion is Immoral,' 83. It should be noted that, since publication of Marquis's seminal article on abortion, he has changed his position slightly. In a recent article, Marquis has argued that the standard embryo does *not* have a future of value, and does so on the grounds of personal identity. Specifically, he contends that human embryos have a future of value *only if* they are early phases of the individuals we now are, and that human embryos are *not* early phases of the individuals we now are. Thus, he no longer holds that the standard embryo possesses a future of value as late as two weeks after conception. However, Marquis's new position on the moral status of the standard embryo in no way affects my critique of Marquis's analysis of 'future of value,' since his analysis remains unchanged in this latest article, and his conclusion is arrived at via personal identity and *not* via psychological continuity as a valuable-making property of futures. See D. Marquis, 'The Moral-Principle Objection to Human Embryonic Stem Cell Research,' in *Metaphilosophy* 38.2-3 (April 2007): 190-206.

10 McMahan, *The Ethics of Killing*, 41

als when they will (or would) live out their natural life spans is largely if not entirely psychological in nature.

III An Alternative Account of the Prima Facie Wrongness of Killing Individuals (A) – (D): The Modified Future of Value Account

Marquis's future of value account of the prima facie wrongness of killing individuals (A) – (D) needs modification, I submit, and to see why one must analyze the property of having a future of value beyond Marquis's own rather limited analysis. In the following, I provide such an analysis. I begin by analyzing 'future of value' qua property of individuals (A) – (D). After understanding more precisely what it means for these individuals to have a future of value, we will be in a better position to determine whether individual (E), the standard embryo, shares this property with them.

As for analyzing 'future of value' qua property of individuals (A) – (D), I will begin by focusing on what it means for one of these individuals — individual (D), the standard adult — to have a future of value. Once this is completed, I will determine whether what it means for individual (D) to have a future of value is also what it means for individuals (A) – (C) to have a future of value.

So what does it mean for the standard adult to have a future of value? To establish this, one must determine not only what it means to *have* a future, but what it means to have a particular *kind* of future, namely, a future of *value*. An analysis of each of these concepts is provided below. For the sake of simplicity, the term 'Joe' is substituted for 'the standard adult.'

What, then, does it mean for Joe to *have* a future? Expanding a bit upon Marquis's analysis, it means that, presently (t1), Joe stands in a certain sort of relation with his future, the life he will live if he lives out his natural life span. The nature of the relation is one of potential, meaning that Joe at t1 has the potential to live the life he will live if he lives out his natural life span.¹¹ And, as stated previously, by 'future of *value*' Marquis means a future constituted by *goods* of consciousness, goods that one will (or would) value when one will (or would) experience them. Given the preceding meaning of 'Joe has a future,' then,

11 'Potential' will be understood here in the following way: 'An entity's potential is simply what it can become through the full range of possible transformations that would be identity-preserving' (McMahan, *The Ethics of Killing*, 317).

we may understand 'Joe has a future of value' to mean 'Joe at t1 has the potential to value goods of consciousness when he will (or would) experience them.'

It is at this point that analysis beyond Marquis's own is required if we are to get to the bottom of what it means for Joe to have a future of value.

Claiming that Joe at t1 has the potential to value goods of consciousness when he will (or would) experience them involves attributing the possession of psychological states to Joe's future self (Joe at t3).¹² For to value goods of consciousness when he will (or would) experience them, Joe at t3 must possess the psychological state of consciousness in addition to those psychological states involved in valuing (such as, say, taking an interest in or desiring).¹³ Among other things, then, to say that Joe has a future of value is to say that Joe at t1 has the potential to possess certain psychological states at t3. And it is depriving Joe of the potential to possess these psychological states, Marquis contends, that underlies the *prima facie* wrongness of killing him. Hence the claim found in the introduction of this paper: Marquis's argument for the *prima facie* wrongness of killing individuals (A) – (E) rests upon a particular psychological account of what's valuable about their continued existence.

Admittedly, Marquis's future of value account of the *prima facie* wrongness of killing Joe resonates with many people, including me. But it does so, I submit, insofar as one imputes to it something that isn't built into the account — at least not explicitly — namely, that Joe at t1 is psychologically continuous with Joe at t3. More specifically, it does so insofar as one holds that, just as possession of the aforementioned psychological states is a valuable-making property of Joe's future, so *psychological continuity* is a valuable-making property of Joe's future. If this is correct — specifically, if psychological continuity is a valuable-making property that should be included among the valuable-making properties constitutive of a future of value — then 'Joe has a future of value' means 'Joe has the potential to (i) value goods of consciousness when he will (or would) experience them and (ii) do so as a psychologically continuous individual.' And if this is correct, then individual (E)

12 Examples of psychological states include sensations, propositional attitudes (beliefs, hopes, fears, wishes, and so on), character traits, emotions, decisions, intentions, and more.

13 For example, valuing things involves the capacity for taking an interest in things, and the capacity for taking an interest in things involves the capacity for desiring things. See Michael Tooley, *Abortion and Infanticide* (Oxford: Oxford University Press 1983), 104-6.

lacks a future of value, or so I shall argue. That this *is* correct will be demonstrated presently.¹⁴

Before moving on, it should be made clear that I'm *not* claiming Marquis's future of value account of the prima facie wrongness of killing Joe resonates with people insofar as one holds that psychological continuity — or, more broadly, the psychological account of personal identity — is the correct account of personal identity. Indeed, with respect to accounts of personal identity, my account of the moral status of destroying human embryos is neutral. I'm claiming that Marquis's future of value account of the prima facie wrongness of killing Joe resonates with people insofar as one holds that psychological continuity is a valuable-making property of Joe's future, *independent* of whether psychological continuity is *also* the correct account of personal identity.

1. On Psychological Continuity as a Valuable-Making Property of the Standard Adult's Future

Before determining whether psychological continuity is a valuable-making property that should be included among the valuable-making properties constitutive of a future of value, we must understand what

14 The view that I am about to develop and defend is similar to Peter McNerney's insofar as both focus on the ways in which standard embryos and standard adult human beings are related to their futures, and both allege that standard embryos and standard adult human beings are related to their futures in different ways. However, my position is distinct from McNerney's in numerous and important ways. The two most important ways are as follows. First, and most importantly, though McNerney correctly observes that standard embryos and standard adult human beings are related to their futures in different ways, he fails to demonstrate that this difference entails that the standard embryo lacks a future of value. Specifically, he fails to justify two of the central claims that I have attempted to justify in my paper: (1) that psychological continuity is a valuable-making property of our futures (i.e., that, all else being equal, one's future is more valuable if it contains psychological continuity than if it does not) and (2) that psychological continuity should be included among the valuable-making properties constitutive of what we're calling a 'future of value' (i.e., that it is the kind of valuable-making property such that one's death poses no non-negligibly greater misfortune than one's continued existence as a psychologically *dis*continuous individual). In short, that the standard embryo and the standard adult human being are related to their futures in different ways is a nonethical fact; that this difference entails that the standard embryo lacks the moral-status-conferring property of having a future of value must be supported by considerations of what makes our futures valuable (i.e., considerations of value). The latter is what I do in my paper while McNerney does not. See P. McNerney, 'Does a Fetus Already Have a Future-Like-Ours?' in *The Abortion Controversy*, 2nd ed., L. Pojman and F. Beckwith, eds. (Belmont, CA: Wadsworth 1998), 357-61.

is meant by it. For the purposes of this paper, I will rely on an understanding of psychological continuity articulated by Derek Parfit and Jeff McMahan, among others.

According to Parfit and McMahan, psychological continuity involves psychological connectedness, constitutive of which are direct psychological connections.¹⁵ The following relations are instances of such connections: 'the relation between an experience and a memory of it, the relation between the formation of a desire and the experience of the satisfaction or frustration of that desire, and the relation between an earlier and a later manifestation of a belief, value, intention, or character trait.'¹⁶

Moreover, for the purposes of this paper, *broad* psychological continuity — the view that psychological continuity is a matter of degree — will be adopted.¹⁷ Regarding these degrees of psychological continuity, *strong* psychological continuity obtains when there are chains of strong psychological connectedness, that is, when there are at least half the number of psychological connections that hold over each day in the life of a standard adult. While *weak* psychological continuity obtains when there are chains of weak psychological connectedness, that is, when there are fewer than half the number of psychological connections that hold over each day in the life of a standard adult.¹⁸

With this understanding of psychological continuity in mind, we are now prepared to address the following two questions. First, is psychological continuity a valuable-making property of Joe's future? That is, all else being equal, is Joe's future more valuable if it contains psychological continuity than if it does not? Second, if psychological continuity is indeed a valuable-making property of Joe's future, is it one that should be included among the valuable-making properties constitutive of what we're calling a future of value? For the purposes of this paper, it will be assumed that a property P is to be included among the valuable-making properties constitutive of a future of value only if death poses only a negligibly greater, if not no greater, misfortune than a future lacking P. Given this, we may ask the second question in the following way: Is psychological continuity the kind of valuable-making property such that Joe's death poses only a negligibly greater, if not no greater,

15 McMahan, *The Ethics of Killing*, 39. For more on psychological continuity, see Derek Parfit, *Reasons and Persons* (Oxford: Oxford University Press 1985), 206ff.

16 McMahan, *The Ethics of Killing*, 39

17 McMahan, *The Ethics of Killing*, 50

18 McMahan, *The Ethics of Killing*, 50

misfortune than Joe's continued existence as a psychologically *discontinuous* individual? Each of these questions will be addressed in turn.

Before addressing the first question, it should be made clear what, exactly, is being asked. Similar to a point made above, the question is *not* whether psychological continuity — specifically the psychological account of personal identity — is the correct account of personal identity. To be sure, many philosophers engaged in the debate on the ethics of killing invoke psychological continuity in answering the question of personal identity. But this is not what I'm doing here. Rather, I'm invoking psychological continuity only as an answer to the question of what makes our futures valuable. As stated above, with respect to accounts of personal identity, my account of the moral status of destroying human embryos is neutral. Accordingly, it is consistent not only with the psychological account of personal identity but other traditional accounts of personal identity as well, including the view that we are essentially biological organisms and the view that we are essentially souls. In short, my account of the moral status of destroying human embryos utilizes the concept of psychological continuity without thereby committing itself to an account of personal identity, the psychological account notwithstanding. Moreover, for the purposes of this paper, I will grant that the personal identity obtains between Joe at t_1 and Joe at t_3 *even when* they are not psychologically continuous. So, the first question raised above is *not* to be understood as whether psychological continuity is the correct account of personal identity; rather, it is to be understood as whether Joe's future is more valuable if it contains psychological continuity than if it does not — whether psychological continuity is a *valuable-making* property of Joe's future, all else being equal. That psychological continuity *is* a valuable-making property of Joe's future may be demonstrated as follows.¹⁹

19 The following demonstration involves appealing to a series of thought experiments, as is the norm for many philosophers involved in the debate on the ethics of killing, particularly those philosophers, acknowledged in the introduction of this paper, who have influenced me so much. To be sure, some philosophers do not value the use of such experiments very much, for they question to what extent we can rely on — or even determine what are — our intuitions in these cases. And though I can sympathize with this attitude to an extent, I think there are good reasons nonetheless to rely on such experiments, not the least of which is that such are part and parcel of the method of reflective equilibrium, a method in ethics for which, as Boonin writes, 'there seems to be no plausible alternative' (Boonin, *A Defense of Abortion*, 12). Elsewhere, I defend the view that the method of reflective equilibrium *requires* us to make use of such thought experiments (see R. Lovering, 'Mary Anne Warren on "Full" Moral Status,' in *Southern Journal of Philosophy* 42.4 (2004): 509-30).

Suppose that between t_1 and t_3 (t_2) Joe will be sedated and undergo lung surgery. Before surgery begins, however, the surgeon informs Joe that, at no extra cost, he (Joe) has the option of recovering from sedation as a psychologically discontinuous individual. The surgeon assures Joe that he (Joe) will still value goods of consciousness when he will experience them. The difference is that he will not do so as a psychologically continuous individual. Rather, he will do so as a psychologically discontinuous individual, an individual with beliefs, values, attitudes, intentions, personality traits, and even 'memories' that have no direct connections with those he possessed prior to being sedated. That is, he will do so as someone who is *all but* an entirely new individual who remembers nothing about his life prior to t_2 . (I say 'all but' an entirely new individual because, as stated previously, I am granting that personal identity obtains between Joe at t_1 and Joe at t_3 even when they are psychologically discontinuous.)

Given that Joe is a standard adult, it is hard to believe that he should opt for the recovery involving psychological discontinuity. For even if Joe at t_1 were guaranteed that his future would be constituted by goods of consciousness, given the lack of psychological continuity, it's difficult to see how such a future could be of any value to Joe at t_1 . Paraphrasing McMahan, the future available to Joe at t_1 is too much like someone else's future, for Joe at t_3 is a complete stranger to Joe at t_1 . In other words, the psychological distance between Joe at t_1 and Joe at t_3 is too great to think of the goods in that future as fully those of Joe at t_1 .²⁰ Indeed, given the psychological distance between Joe at t_1 and Joe at t_3 , the valuing of goods of consciousness at t_3 might as well be done by *someone else*; that is, Joe's future might as well be someone else's future. Joe at t_1 and Joe at t_3 are so radically different — even if numerically identical — that Joe at t_1 seemingly has no *egoistic* reason to take an interest in Joe at t_3 . That is, that Joe at t_1 and Joe at t_3 are numerically identical is seemingly of no value to Joe at t_1 when all of Joe at t_3 's psychological states are completely disconnected from Joe at t_1 's psychological states. And so it seems that Joe ought to reject the option to recover as a psychologically discontinuous individual. Thus, it seems that, all else being equal, Joe's future is more valuable if it contains psychological continuity than if it does not; that is, that psychological continuity is a valuable-making property of Joe's future.

But is psychological continuity a valuable-making property that should be included among the valuable-making properties constitutive of what we're calling a future of value? That is, is it the kind of

20 McMahan, *The Ethics of Killing*, 78

valuable-making property such that Joe's death poses either no or only negligibly greater misfortune than Joe's continued existence as a psychologically discontinuous individual? That it is may be demonstrated as follows.

Let's begin with a case involving what will be referred to as 'iterated psychological discontinuity.' Suppose that at t_2 Joe will be sedated and a neurosurgeon will do one of two things to Joe's brain.²¹ Either he will manipulate Joe's brain in such a way that psychological continuity will obtain for the next ten years, after which the brain will completely cease to function, killing Joe. Or he will manipulate Joe's brain in such a way that psychological continuity will never obtain for the rest of Joe's natural life span. Thus, there will be no direct psychological connections between Joe at t_1 and Joe at t_3 , between Joe at t_3 and Joe at t_4 , between Joe at t_4 and Joe at t_5 , and so on. In every other respect, however, Joe's brain will function properly for the rest of his natural life span.²²

If the neurosurgeon does the former, then Joe will value goods of consciousness when he will experience them as a psychologically continuous individual for the next ten years, after which he will no longer do so as he will be dead. Whereas if the neurosurgeon does the latter, then Joe will value goods of consciousness when he will experience them as an iteratedly psychologically discontinuous individual, that is, with beliefs, values, attitudes, intentions, personality traits, and memories that have no direct connections with those he possessed the moment before.

Assuming the neurosurgeon allows Joe to decide in what way his brain will be manipulated, what should Joe choose?

It's difficult to believe that Joe should choose the brain manipulation involving iterated psychological discontinuity, since it's hard to see how such a future could be of any value to Joe at t_1 . Again, even if Joe at t_1 were guaranteed that his future would be constituted by goods of consciousness, given its iterated psychological discontinuity, it's hard to see how such a future could be of any value to him. In that future, Joe at t_3 is a complete stranger to Joe at t_1 , as is Joe at t_4 , Joe at t_5 , etc. (Indeed, Joe at t_4 is a complete stranger to Joe at t_3 , Joe at t_5 is a complete stranger to Joe at t_4 , and so on.) Given the psychological distance between Joe at t_1 and Joe at t_3 , t_4 , t_5 , etc., the valuing of goods of consciousness at t_3 , t_4 , t_5 , etc., might as well be done by someone

21 This is a modified version of a thought experiment introduced by Bernard Williams and discussed by McMahan.

22 It's noteworthy that there are real cases in which individuals live in a state comparable to the one described here. See McMahan, *The Ethics of Killing*, 76-7.

else; Joe's future might as well be someone else's future. In sum, Joe at t1 and Joe at t3, t4, etc., are so radically different that Joe at t1 seemingly has no egoistic reason to value the existence of Joe at t3, t4, etc., *over his own death*. Indeed, for all practical purposes, for Joe of t1 to be iteratedly psychologically discontinuous with Joe of t3, t4, etc., is for Joe of t1 to be dead at t3. And so it seems that Joe should reject the brain manipulation involving iterated psychological discontinuity and choose that which involves the preservation of psychological continuity.

Now, some may think that I have arrived at this conclusion prematurely. Specifically, some might argue that what's driving my judgment in this case is the fact that the psychological discontinuity is iterated. Perhaps my judgment would change, some might contend, if the case were altered such that it involves not iterated psychological continuity but *noniterated* psychological discontinuity. Let us consider the case, then, with the following alteration: the psychological discontinuity that occurs at t2 will not be iterated, so Joe at t3 will be psychologically discontinuous with Joe at t1 but psychologically continuous with Joe at t4, t5, etc. Accordingly, if Joe chooses the brain manipulation involving noniterated psychological discontinuity, then he will value goods of consciousness when he will experience them with beliefs, values, attitudes, intentions, personality traits, and memories that have no direct connections with those he possessed at t1 but have direct connections with those he possesses at t3.

Again, assuming the neurosurgeon allows Joe to decide in what way his brain will be manipulated, what should Joe choose?

Well, in the case involving *iterated* psychological discontinuity, it was difficult to believe that Joe should choose the brain manipulation involving iterated psychological discontinuity. And the only difference between that case and the case involving *noniterated* psychological discontinuity is the number of times psychological discontinuity obtains. In the former case, it obtains numerous times; in the latter case, it obtains only once. Yet, it's hard to believe that this difference *alone* should affect our judgment regarding what Joe should do. For in the case of iterated psychological discontinuity, Joe at t3, Joe at t4, Joe at t5, etc., are all complete strangers to Joe at t1. That is, each is a stranger to Joe at t1 *to the same degree*; none is a *greater* stranger to Joe at t1 than any other. And it is on account of *this* difference — the difference pertaining to the *nature* of psychological discontinuity and not on account of the *number of times* that this difference obtains — that it seems that Joe at t1 should reject the brain manipulation involving psychological discontinuity. So, the fact that the psychological discontinuity is noniterated rather than iterated seemingly makes no difference to Joe at t1's egoistic interest regarding his future. Thus, if we hold that Joe should not choose the brain manipulation involving *iterated* psychological discontinuity, we

should also hold that Joe should not choose the brain manipulation involving *noniterated* psychological discontinuity.

One final case needs to be considered in order to demonstrate that psychological continuity should be included among the valuable-making properties constitutive of a future of value. After sedating Joe at t_2 , the neurosurgeon will either manipulate Joe's brain such that Joe will recover as a noniterated psychologically discontinuous individual, or he will destroy Joe's brain, killing him. What should Joe choose? More to the point: Does Joe's brain (and, in turn, biological) death pose a non-negligibly greater misfortune than his continued existence as a non-iterated psychologically discontinuous individual? It seems not. As in the preceding cases, for all practical purposes, for Joe of t_1 to be non-iterated psychologically discontinuous with Joe of t_3 is for Joe of t_1 to be dead at t_3 . Granted, Joe remains biologically alive and conscious at t_3 , but he does so as a complete stranger to who he was at t_1 . Accordingly, even if he values goods of consciousness at t_3 , he does so as a complete stranger to who he was at t_1 . Given this, the valuing of goods of consciousness at t_3 might as well be done by someone else. The fact that Joe at t_1 and the stranger at t_3 are numerically identical does not seem to render Joe's life as a noniterated psychologically discontinuous individual a non-negligibly lesser misfortune than his own death.

There is reason to believe, then, that Joe at t_1 wouldn't find a future constituted by goods of consciousness to be valued when he will (or would) experience them *alone* to be valuable. Rather, he would find a future constituted by goods of consciousness to be valued when he will (or would) experience them *as a psychologically continuous individual* to be valuable. And if this is correct, then we have reason for believing that Joe's having a future of value involves the potential not only to (i) value goods of consciousness when he will (or would) experience them but to (ii) do so as a psychologically continuous individual.

2. *Motivating the Point: Psychological Continuity and the Doctrine of Reincarnation*

If, at this point, you are still not quite convinced that psychological continuity is the kind of valuable-making property such that Joe's death poses no greater misfortune than Joe's continued existence as a psychologically discontinuous individual, I'd like to motivate the point further by way of illustration, one involving the doctrine of reincarnation. Briefly, the doctrine of reincarnation is the belief that some essential part of a living being survives death to be reborn in a new body. For humans, what this means is that whatever makes us *us* survives death to be reborn in a new body, whether it be the body of a fly, a cat, a chimpanzee, or even another human. In other words, for any given

individual, M, numerical identity obtains between the pre-death M and the post-death M, even if the post-death M is reborn in the body of a fly. However, it is *not* the case that, for any given individual, M, psychological continuity obtains between pre-death M and post-death M.²³ So, in some cases of reincarnation, numerical identity is preserved but psychological continuity is not. And it is with such cases in mind that a common criticism of the doctrine of reincarnation is raised: ‘Okay, so in my next life I may be, say, a fly with no beliefs, values, attitudes, intentions, personality traits, or memories that are connected to the beliefs, values, attitudes, intentions, personality traits, and memories I currently have. If this will indeed be the case, the question I have is: why should I care about my future self? That is, what egoistic reason do I have for taking an interest in my future self? As far as I can tell, I have none whatsoever. Even if I’m numerically identical with that future fly, for all practical purposes, I’m dead.’

Now, if the preceding criticism of the doctrine of reincarnation resonates with you, so, I submit, should the point I have made regarding Joe and the neurosurgeon. For in both cases numerical identity is preserved while psychological continuity is not. The only relevant difference between the two cases has to do with what kind of body we’re dealing with once psychological continuity is severed: in the case of the doctrine of reincarnation, it’s the body of a fly, while in the case of Joe, it’s the body of a human. But the criticism of the doctrine of reincarnation is rooted not in the fact that it involves the body of a fly but in the fact that psychological continuity has been severed — one could substitute the body of a cat, a chimpanzee, or even a *human* for the body of the fly and the criticism would remain. Indeed, substitute the body of a human for that of the fly and, fundamentally, one’s left with the case of Joe, albeit with a change in the way psychological discontinuity is brought about. All that to say, whether it be through brain surgery or reincarnation, when psychological continuity is severed though numerical identity is preserved, it seems Joe at t1 has no egoistic reason for taking an interest Joe at t3.

3. *Some Objections*

At this point, I would like to discuss two objections to my proposed account of the prima facie wrongness of killing Joe.

First, suppose once again that at t2 Joe will be sedated and a neurosurgeon will manipulate Joe’s brain such that he will recover as a

23 Consider, for example, the notable lack of memories that believers in the doctrine of reincarnation have about their former lives.

noniteratedly psychologically discontinuous individual who, upon recovering, will be tortured for five minutes.²⁴ Now, given what I have argued above, for all practical purposes, for Joe of t1 to be noniteratedly psychologically discontinuous with Joe of t3 is for Joe of t1 to be dead at t3. Accordingly, even if at t3 Joe detests the *bads* of consciousness brought about by torture, on the view I'm defending here, the detesting might as well be done by someone else. But this suggests a problem. For this seems to commit me to believing that Joe at t1 has no egoistic reason to take an interest in Joe at t3. Yet, such an implication is counterintuitive to some, most famously to Bernard Williams.²⁵ Specifically, Williams holds that, since personal identity obtains between Joe at t1 and Joe at t3 (as I have granted), Joe at t1 would fear the torture of Joe at t3 and, in turn, have an egoistic reason to take an interest in him.

A number of philosophers have raised objections to Williams's position regarding this case, some of which I find to be adequate.²⁶ However, for the purposes of this paper, I will not simply rely on these objections but instead attempt to provide further reasons for rejecting Williams's position. I will begin with an empirically-based objection, followed by a philosophically-based objection.

First, there is reason to be suspicious of Williams's intuition in this case: arguably, this intuition is more a product of emotion — particularly fear — than reason. For this case involves something that rightly terrifies most people, namely, torture. And given that there is a (strong) correlation between the degree to which people fear something and the degree to which they think rationally about it, there is reason to believe that Williams's intuition regarding this case is driven more by emotion than reason.²⁷

To motivate this point, let's alter the case slightly. Rather than being tortured for five minutes at t3, Joe is given that which is inversely proportional (with respect to psychological states) to torture, whatever that might be (say, a five-minute session in Woody Allen's orgasmatron as seen in the film *Sleeper*). With all else being equal, shouldn't Williams have an equally strong intuition that Joe at t1 has egoistic reason to take an interest in Joe at t3? If reason rather than fear is what drives his

24 This is adapted from a case introduced by Bernard Williams. See B. Williams, 'The Self and the Future,' in *Personal Identity*, R. Martin and J. Barresi, eds. (Oxford: Blackwell Publishing 2002), 80-1.

25 See Williams, 'The Self and the Future,' 80-1.

26 For example, see Parfit, *Reasons and Persons*, 229ff.

27 See Stuart Sutherland, *Irrationality: Why We Don't Think Straight* (New Brunswick, NJ: Rutgers University Press 1994).

intuition in the case involving torture, it seems he should. For reason would call for symmetry with respect to strength of intuition. After all, the only difference between the two cases is what happens to take place *after* the brain manipulation; there is no difference in the way Joe at t1 is related to Joe at t3. And what happens to take place after the brain manipulation involving the session in the orgasmatron is inversely proportional with respect to psychological states to what takes place after the brain manipulation involving torture. Thus, if there would be a difference in strength of intuition regarding this case, it seems it would be more a product of Williams's emotion than his reason.

Whether Williams would have an equally strong intuition that Joe at t1 has egoistic reason to be concerned about or take an interest in Joe at t3, I can't say. But I *can* say that my intuitions in these two cases are not equally strong — specifically, my intuition regarding the case involving torture is stronger than my intuition involving the case involving time in the orgasmatron. Yet, upon reflection, the reason for this asymmetry seems to be that I *fear* torture more than I *delight* in the prospect of five minutes in the orgasmatron; that is, that emotion is driving my intuition in the case involving torture more so than it is in the case involving the session in the orgasmatron. And, in this respect, I suspect I'm not alone. Given this, there is reason to believe that emotion drives my intuition in the case involving torture more so than reason. Granted, this observation *alone* does not settle the issue of what our intuition should be in the case involving torture. But when it comes to deciding between divergent intuitions, I do not see how we can do any more than simply cast doubt on the opposing intuition — refuting it does not seem to be an option.

Another objection to Williams's position is as follows. Suppose that Joe at t1 knows that Joe at t3 will be a serious masochist who desires to be tortured, has memories of enjoying torture, fears *not* being tortured, etc. As a result, Joe at t1 concludes that he has no egoistic reason to take an interest in Joe at t3. *After all*, Joe at t1 thinks, *I'm currently not a masochist. Accordingly, I currently have no egoistic reason take an interest in whether a given masochist's desires will be fulfilled at t3, even if that masochist is my future self.* In other words, Joe at t1 reasons that unless psychological continuity obtains between Joe at t1 and Joe at t3 vis-à-vis his desires, memories, and fears regarding torture, he has no egoistic reason to take an interest in Joe at t3. And this seems to be correct. If so, this casts doubt upon Williams's contention that Joe at t1's egoistic reason to take an interest in Joe at t3 turns on personal identity — rather than psychological continuity — obtaining between him and Joe at t3. For, from Joe at t1's perspective, whether he has egoistic reason to take an interest in Joe at t3 turns not on the personal identity that obtains between him and Joe at t3, but on the psychological continuity

that will or will not obtain between Joe at t1 and Joe at t3 vis-à-vis his desires, memories, and fears regarding torture. So, it is far from clear that it is the personal identity that obtains between Joe at t1 and Joe at t3 — rather than a surreptitiously imputed psychological continuity — which drives Williams's intuition.

A second objection to my proposed account of the wrongness of killing Joe is as follows. Presumably in some cases, Joe can be a complete stranger to his earlier self *even when* psychological continuity obtains, such as in the case of, say, the ninety-year-old Joe who suffers from severe dementia and his earlier twenty-year-old self. (Again, for the purposes of this paper, by 'psychological continuity' I mean *broad* psychological continuity, the view that psychological continuity is a matter of degree. Thus, in this case, the ninety-year-old Joe who suffers from severe dementia can be psychologically continuous with his earlier twenty-year-old self insofar as there are chains of weak psychological connectedness, that is, fewer than half the number of psychological connections that hold over each day in the life of a standard adult.) And given that it's in virtue of the fact that Joe at t3 is a complete stranger to Joe at t1 that I think that noniterated psychological discontinuity is a misfortune on par with death, then it seems I must be committed to thinking that, in such cases, the younger self suffers a misfortune on par with death from developing severe dementia.

Presumably, such an implication is counterintuitive to some, but not to this author. Indeed, I find it *strongly* intuitive that there is more than one way for one's future to be of little to no value to oneself and this is one of them. And I am not alone in this regard. Referring to families of victims of dementia, professor of gerontology Kenneth Doka writes, 'The family may experience a deep sense of 'psychological loss'; that is the persona of the person, or the psychological essence of the individual's personality is now perceived as lost even though the person is physically alive. The sense of individual identity is so changed now that family members experience the death of a person who once was.'²⁸ So, there is reason to believe that the twenty-year-old Joe can suffer a misfortune on par with death from developing severe dementia.

4. On the Valuable-Making Properties of the Futures of the Standard Infant, Suicidal Teenager, and Temporarily Comatose Individual

The preceding gives us reason to believe that Joe's having a future of value at t1 involves the potential to (i) value goods of consciousness

28 Kenneth Doka, 'Grief and Dementia,' in *Living with Grief: Alzheimer's Disease* (Washington, DC: Hospice Foundation of America 2004), ch. 10, 3-4.

when he will (or would) experience them and (ii) do so as a psychologically continuous individual. We have determined, then, what it means for individual (D) to have a future of value. What about individuals (A) – (C)? What does it mean for the standard infant, suicidal teenager, and temporarily comatose individual to have a future of value? As with the standard adult, I submit, it means that each has the potential to (i) value goods of consciousness when he will (or would) experience them and (ii) do so as a psychologically continuous individual. That each has the potential to value goods of consciousness when he will (or would) experience them is defensible to the same extent that individual (D) has this potential. But what about the potential for doing so as a psychologically continuous individual? Do individuals (A) – (C) possess this property? They do. Each possesses psychological states and, in turn, the potential to establish direct, weak (and, in the case of individuals (B) and (C), strong) psychological connections.²⁹ (Even the temporarily comatose individual at t1 has beliefs that can be manifested at t3, hopes that can be fulfilled at t3, etc., albeit dispositionally.) And, in virtue of this fact, each has the potential for psychological continuity. Accordingly, each has the potential to (i) value goods of consciousness when he will (or would) experience them and (ii) do so as a psychologically continuous individual.

IV Does the Standard Embryo Have a (Modified) Future of Value? On the Moral Status of Destroying Human Embryos

Now that we know more precisely what it means for individuals (A) – (D) to have a future of value, we are in a better position to determine whether individual (E), the standard embryo, has one as well. If it does, then it shares with individuals (A) – (D) the property the possession of which is sufficient to make killing them *prima facie* wrong. In order to determine this, we need merely establish whether individual (E) has the potential to (i) value goods of consciousness when it will (or would) experience them and (ii) do so as a psychologically continuous individual.

29 There is ample evidence — behavioral, neurophysiological, and conceptual — that the standard infant possesses this second-order potential as well. See Boonin, *A Defense of Abortion*, 83; McMahan, *The Ethics of Killing*, 46; Tom Regan, *The Case for Animal Rights* (Berkeley: University of California Press 1983), 45; and Harold Morowitz and James Trefil, *The Facts of Life: Science and the Abortion Controversy* (Oxford: Oxford University Press 1992).

Though at first glance it may appear that the standard embryo does indeed have such a potential, there are a number of reasons for believing it does not, one of which has to do with the *kind* of potential that is constitutive of a future of value. To flesh this out, let us return to the case of Joe.

Prior to the actualization of psychological connections, Joe at t1 has the potential to be psychologically continuous with Joe at t3. But this statement is ambiguous, for Joe's potential to be psychologically continuous with Joe at t3 may be understood in terms of one of two kinds of potential, namely, 'first-order' and 'second-order'.³⁰ First-order potential involves two temporally successive potential-actual relations: the potential to actualize in a certain way and, once actualized thus, the potential to actualize in yet another way. For example, Joe's potential to actualize as a cancer survivor is a first-order potential: Joe has the potential to actualize as an individual with cancer and, once actualized thus, has the potential to actualize as a cancer survivor. Second-order potential involves the second of the two temporally successive potential-actual relations constitutive of first-order potential. For example, Joe's potential to actualize as a balding individual is second-order: having already actualized as an individual with a full head of hair, Joe has the potential to actualize as a balding individual. Given these two kinds of potential, Joe's potential to be psychologically continuous with Joe at t3 may be understood in one of two ways:

First-order potential: Joe at t1 has the potential to actualize as something that possesses psychological states and, once actualized thus, the potential to actualize as psychologically continuous with Joe at t3.

Second-order potential: Joe at t1 already possesses psychological states and, in turn, has the potential to actualize as psychologically continuous with Joe at t3.

Clearly, Joe's potential to be psychologically continuous with Joe at t3 is not first-order but second-order in nature: qua standard adult human being, Joe already possesses psychological states and, in turn, has the potential to actualize as psychologically continuous with his future self. And so it is with individuals (B) – (D): each already possesses psychological states and, in turn, has the potential to actualize as psychologically continuous with his future self. (As stated previously, even the

30 Again, this distinction is fleshed out by Aristotle in Book Nine of the *Metaphysics*.

temporarily comatose individual at t1 has beliefs that can be manifested and hopes that can be fulfilled at t3.)

The same, however, cannot be said of individual (E), for the standard embryo lacks psychological states.³¹ In turn, it has merely the first-order potential to be psychologically continuous with itself: it has the potential to actualize as something that possesses psychological states and, once actualized thus, the potential to actualize as psychologically continuous with its future self. And given that the method adopted here has been to determine what property or set of properties individuals (A) – (D) have in virtue of which killing them is *prima facie* wrong, we may conclude that the standard embryo does not have that property, one which involves having the second-order potential for psychological continuity, among other things.

However, from the fact that individuals (A) – (D)'s potential for psychological continuity is second-order in nature, it does not follow that first-order potential for psychological continuity can't *also* be the kind of potential that is constitutive of having a future of value. Thus, I need to provide further reason that first-order potential for psychological continuity shouldn't be considered one kind of potential that is constitutive of a future of value.

One reason to think that the potential for psychological continuity constitutive of a future of value is second-order rather than first-order is that, if it were first-order, then, given cloning by somatic cell nuclear transplant (SCNT), each of the trillions of somatic cells that collectively make up a given human being would have a future of value.³² For each

31 It is generally held that a functioning cerebral cortex isn't present before the 25th week of gestation. See Morowitz's and Trefil's *The Facts of Life: Science and the Abortion Controversy*. To be sure, unorganized electrical activity has been detected in the brain stems of embryos between 6 and 8 weeks gestation. But, as Boonin writes, 'If the electrical activity in the brain is random and unorganized, then we can infer very little about what is going on in the brain from it. Every cell in the human body exhibits some degree of electrical activity, and the fact that an electrical signal can be detected from the brain cells in this sense show merely that they are alive' (Boonin, *A Defense of Abortion*, 106-7). Moreover, the relation between consciousness and a functioning cerebral cortex is such that 'without the latter, we do not have the former' (Boonin, *A Defense of Abortion*, 103).

32 The following is a description of what somatic cell nuclear transfer (SCNT) involves: 'In genetics and developmental biology, SCNT is a laboratory technique for creating an ovum with a donor nucleus ... In SCNT the nucleus, which contains the organism's DNA, of a somatic cell (a body cell other than a sperm or egg cell) is removed and the rest of the cell discarded. At the same time, the nucleus of an egg cell is removed. The nucleus of the somatic cell is then inserted into the enucleated egg cell. After being inserted into the egg, the somatic cell nucleus is reprogrammed by the host cell. The egg, now containing the nucleus of a somatic

has the first-order potential to (i) value goods of consciousness when it will (or would) experience them and (ii) do so as a psychologically continuous individual. Isolating (ii), each has the potential actualize as something that possesses psychological states and, once actualized thus, the potential to actualize as psychologically continuous with its future self. Thus, by merely scratching one's nose or brushing one's teeth and thereby destroying an untold number of one's somatic cells, one would be depriving each of these cells of a future of value and, in turn, doing something that is *prima facie* wrong. Indeed, one would be doing something morally on par with mass murder; after all, depriving numerous individuals of a future of value simply for the sake of relieving an itch is, presumably, unjustified. But this is absurd. Thus, the potential for psychological continuity constitutive of a future of value is better understood as second-order rather than first-order.

Of course, some might object to the preceding by invoking the distinction between *intrinsic* and *extrinsic* potential. One way to distinguish between the two is as follows:³³

Intrinsic potential: X has the intrinsic potential to become Y if all it requires from the outside in order to become Y is its normal environment.

Extrinsic potential: X has the extrinsic potential to become Y if, in order to become Y, it requires from the outside more than just its normal environment.

With this in mind, some might claim that these somatic cells have merely the *extrinsic* first-order potential for psychological continuity, while the standard embryo has the *intrinsic* first-order potential for psychological continuity and that only those things that have the *intrinsic* first-order potential for (i) and (ii) have a future of value.

Such an objection is problematic on numerous grounds.³⁴ However, for the sake of space, I'll cut to the chase and discuss what I think is the

cell, is stimulated with a shock and will begin to divide. After many mitotic divisions in culture, this single cell forms a blastocyst (an early stage embryo with about 100 cells) with almost identical DNA to the original organism.' <http://www.answers.com/main/ntquery?s=somatic+cell+nuclear+transfer&gwp=13>

33 McMahan, *The Ethics of Killing*, 312

34 See McMahan, *The Ethics of Killing*, 315ff. Moreover, it's not even clear that this distinction is tenable as it turns on the notion of thing's 'normal environment' and delineating what a thing's normal environment has proven to be rather difficult. See Jeff Reiman, *Abortion and the Ways We Value Life* (Lanham, MD: Rowman and Littlefield 1999), 65 and McMahan, *The Ethics of Killing*, 312ff.

fatal flaw in it. Since I cannot improve upon McMahan's statement of the fatal flaw, I'll simply quote him here:

There are ... many forms of intrinsic potential that must be elicited by human intervention [such as the intrinsic potential that humans have for language].... It is possible, therefore, that certain forms of intrinsic potential may pass unrecognized and may therefore never be elicited. Suppose that we were to discover that this has hitherto been the case with dogs. Suppose that we were to discover that dogs have the intrinsic potential for self-consciousness and rationality but that until now we have failed to recognize this because the potential has never been realized. ... What we would have discovered is that, on any remotely plausible conception, dogs have the intrinsic potential to become persons. Assuming we were to discover this, ought we to conclude that all dogs have a high moral status — in particular, that all dogs are above the threshold of respect, so that killing a dog is just as wrong as killing a person, if other things are equal? Indeed, ought we to conclude that we and our forebears have been guilty of monstrous wrongs to dogs, who have always been within the scope of the morality of respect though we have been unaware of it? I doubt that anyone would draw these conclusions. While we would (or should) accept that respect would be owed to any dog whose potential to become a person had been realized, the knowledge that all dogs had this potential would not require us to reassess our estimation of the actual worth of all those dogs whose potential was never cultivated or never would be cultivated. But if we would not accept that all dogs, in these circumstances, would be worthy of respect, we do not really believe that the intrinsic potential to become a person is a basis for respect, or for high moral status generally.³⁵

If this is correct — as it seems clearly to be — then the standard embryo's *intrinsic* first-order potential for psychological continuity confers no greater moral status on it than does the somatic cell's *extrinsic* first-order potential for psychological continuity. That is to say, that the standard

35 McMahan, *The Ethics of Killing*, 316. In addition to this argument, Michael Tooley has very recently argued — successfully, by my lights — that, to the extent that potentialities are relevant to an entity's right to life, purely extrinsic potentialities are just as relevant as intrinsic potentialities. See Michael Tooley, et al., *Abortion: Three Perspectives* (Oxford, UK: Oxford University Press 2009), 38ff.

embryo's potential is intrinsic while the somatic cell's is extrinsic makes no difference vis-à-vis their respective moral status.³⁶

A second reason to think that the potential for psychological continuity constitutive of a future of value is second-order rather than first-order is that doing so strikes a plausible compromise between accounts of the prima facie wrongness of killing individuals (A) – (E) that turn on the psychological states individuals (A) – (E) *actually* possess (or, at least, actually have the capacity to possess) and those that turn on the psychological states they *potentially* possess. Mary Anne Warren's account is an example of the former — on this account, the prima facie wrongness of killing individuals (A) – (E) is rooted in their *actual* possession of the capacity for certain psychological states. While Marquis's account is an example of the latter — on this account, the prima facie wrongness of killing (A) – (E) is rooted in their *potential* possession of psychological states, particularly those of valuing goods of consciousness. But by understanding the potential for psychological continuity constitutive of a future of value to be second-order rather than first-order, one strikes a plausible compromise between these accounts. For the second-order *potential* for psychological continuity entails the *actual* possession of psychological states. And in striking this compromise, that which is plausible about accounts that appeal solely to individuals (A) – (E)'s actual psychological states and those that appeal solely to individu-

36 Before moving on, a brief caveat: Alfonso Gómez-Lobo has argued that somatic cells that undergo SCNT do not survive SCNT — specifically, that the identity relation between pre-SCNT cells and the post-SCNT cells does not obtain. From this he infers that any potential the original somatic cell may have had before it underwent SCNT is likewise destroyed by SCNT. If he is correct about this, then somatic cells involved in SCNT do *not* have extrinsic first-order potential for psychological continuity. However, it's not clear that the identity relation between pre-SCNT cells and the post-SCNT cells fails to obtain, as Gómez-Lobo assumes. Specifically, Gomez-Lobo assumes that preservation of the nucleus is insufficient for the preservation of somatic-cell identity. But it's far from clear that this is the case. To motivate this point, consider the case of *personal* identity. When it comes to preserving personal identity, we tend to think that much of the human organism can be destroyed — arms, legs, ears, eyes, etc. — without thereby losing personal identity. Indeed, many philosophers think that all that's needed for the preservation of personal identity is preservation of the upper brain. With this in mind, for all we know, mere preservation of the nucleus of a given somatic cell is sufficient for the identity relation to obtain. For this to be clear one way or the other, we must establish necessary and sufficient conditions for somatic-cell identity, something that, to my knowledge, has yet to be done. And until this is done, we cannot say with confidence whether the identity relation between pre-SCNT cells and the post-SCNT cells fails to obtain. See A. Gómez-Lobo, 'Individuality and Human Beginnings: A Reply to David DeGrazia,' *Journal of Law, Medicine & Ethics* 35.3 (Fall 2007): 461ff.

als (A) – (E)'s potential psychological states is captured without, at the same time, entailing that which is implausible about each of them, namely, that the prima facie wrongness of killing individuals (A) – (E) turns on one or the other, but not both.

(Before moving on to the final reason to think that the potential for psychological continuity constitutive of a future of value is second-order rather than first-order, it should be noted that it pertains *only* to those who accept the psychological account of personal identity. Appealing to this final reason is not inconsistent with my previous claim that, with respect to accounts of personal identity, my account of the moral status of destroying human embryos is neutral. That is indeed the case. With this final reason to think that that the potential for psychological continuity constitutive of a future of value is second-order rather than first-order, I'm simply stating that it is a reason *if* you also accept the psychological account of personal identity. If you do not accept the psychological account of personal identity, you may wish to skip the following two paragraphs.)

The final reason to think that the potential for psychological continuity constitutive of a future of value is second-order rather than first-order has to do with yet another kind of potential, namely, 'identity-preserving potential.' Regarding identity-preserving potential, McMahan writes, 'X has the potential to become Y only if X and Y would be identical — that is, only if X and Y would be one and the same individual entity.'³⁷ And it is reasonable to believe that X's potential for Y confers a special moral status on X only if the potential is identity-preserving. 'It makes little sense to suppose that X's potential to become a Y confers a special moral status on X now if X will never actually be a Y, and especially if the transition to Y involves X's ceasing to exist.'³⁸

With the preceding in mind, individual (E)'s first-order potential to become a psychologically continuous individual is moral-status-conferring only if individual (E) and the future psychologically continuous individual would be identical. But if the psychological account of personal identity is correct, then individual (E) would be identical with the future psychologically continuous individual only if individual (E) possesses psychological states and, in turn, is identical with them. But individual (E)'s first-order potential to become a psychologically continuous individual entails that it *lacks* psychological states: it merely has the potential to actualize as something that possesses psychological states and, once actualized thus, the potential to actualize as psycho-

37 McMahan, *The Ethics of Killing*, 304

38 McMahan, *The Ethics of Killing*, 308-9

logically continuous with its future self. Thus, if one embraces the psychological account of personal identity, then individual (E)'s first-order potential to become a psychologically continuous individual is not identity-preserving and, in turn, is not moral-status-conferring. So, if one accepts the psychological account of personal identity *and* that the potential for psychological continuity is moral-status-conferring, then one must reject the view that potential constitutive of a future of value is first-order and, in turn, that individual (E) has a future of value.

To sum up, since the standard embryo lacks psychological states, it lacks the second-order potential for psychological continuity. At best, the standard embryo has the first-order potential for psychological continuity. However, given that:

- the method adopted here has been to determine what property or set of properties individuals (A) – (D) have in virtue of which killing them is *prima facie* wrong,
- individuals (A) – (D) have a second-order potential for psychological continuity while individual (E), the standard embryo, does not, and
- there are independent reasons to believe that the potential for psychological continuity constitutive of a future of value is second-order but not first-order,

we may conclude that individual (E) lacks a future of value and, accordingly, is not deprived of one when killed. Given this account of the *prima facie* wrongness of killing individuals (A) – (D), then, destroying individual (E) is not *prima facie* wrong.

V Concluding Objections

Some might object that, even if the possession of a future of value is *sufficient* for the *prima facie* wrongness of killing individuals (A) – (D), it does not follow that it is also *necessary* for the *prima facie* wrongness of killing individuals (A) – (D). Accordingly, from the fact that the standard embryo lacks a future of value, it does not follow that destroying it is not morally on par with killing individuals (A) – (D). For example, some might argue that individual (E) possesses certain morally relevant properties — such as biological life, genetic humanity, and even the first-order potential for (i) and (ii) — and that the possession of these morally relevant properties is sufficient to render the killing of individual (E) morally on par with the killing of individuals (A) – (D).

However, once again, each of the trillions of somatic cells that make up a given human being is biologically alive, genetically human, and

has the first-order potential for (i) and (ii) as well, but surely the possession of these properties does not entail that killing them by scratching one's nose is morally on par with killing individuals (A) – (D). So, possessing the morally relevant properties of being biologically alive, genetically human, and having the first-order potential for (i) and (ii) is not sufficient to render the destruction of individual (E) morally on par with the killing of individuals (A) – (D).

Of course, this is not to say that the possession of these morally relevant properties is not sufficient for having *some* degree of moral status; it is only to say that it is not sufficient for having the *same* degree of moral status that individuals (A) – (D) possess. Accordingly, some might contend that, in virtue of the fact that individual (E) possesses the aforementioned morally relevant properties, the killing of individual (E) is *prima facie* wrong, though not to the same degree that it is *prima facie* wrong to kill individuals (A) – (D). But since each human somatic cell possesses these morally relevant properties as well, then it would follow that the degree to which it is *prima facie* wrong to kill individual (E) is the same as the degree to which it is *prima facie* wrong to kill any given human somatic cell. And this would either mean that killing one's somatic cells by scratching one's nose is much more morally problematic than we previously had thought, or that killing individual (E) is not morally problematic, at least, not significantly so. Of the two, the latter strikes me as the more plausible.³⁹

39 I am very grateful for the financial support I received from the Markkula Center for Applied Ethics at Santa Clara University to work on this paper as well as the comments I received from Paul Studtmann, the editor at the *Canadian Journal of Philosophy*, and anonymous referees.

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