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## **Frozen Embryos and The Obligation to Adopt**

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### **ABSTRACT**

Rob Lovering has developed an interesting new critique of views that regard embryos as equally valuable as other human beings: the moral argument for frozen human embryo adoption. The argument is aimed at those who believe that the death of a frozen embryo is a very bad thing, and Lovering concludes that some who hold this view ought to prevent one of these deaths by adopting and gestating a frozen embryo. Contra Lovering, we show that there are far more effective strategies for preserving the lives of frozen embryos than adoption. Moreover, we point out that those who regard the deaths of frozen embryos as a very bad thing will generally regard the deaths of all embryos as a very bad thing, whether they are discarded embryos, aborted embryos or embryos that spontaneously abort. This entails these other embryos must be taken into account when considering moral obligations, as well as other human lives at risk from preventable causes.

### **KEYWORDS:**

comparable moral significance, embryo adoption, frozen human embryo, adoption

## INTRODUCTION

In recent years, Rob Lovering has developed several arguments that challenge the plausibility of the account of human persons known as the substance view, which asserts that all human beings are of equal value, whether they are embryos or adults.<sup>1</sup> He has now developed an interesting new argument, which he refers to as the *moral argument for frozen human embryo adoption*, and which we will refer to as the *moral argument*.<sup>2</sup>

Lovering's moral argument draws on two of his previous arguments. The *embryo rescue argument* claims it is strongly counterintuitive to rescue ten frozen embryos instead of a five-year-old human being, and hence serves as a *reductio* argument against the substance view.<sup>3</sup> The *embryo mortality argument* notes that a high percentage of pregnancies end in spontaneous abortion, resulting in the deaths of many millions of human beings each year.<sup>4</sup> Lovering suggests that substance view proponents have a strong moral obligation to act to reduce these deaths—which he contends is absurd and hence another *reductio*. Further, they fail to act in ways that will mitigate spontaneous abortion, implying either that they are acting immorally or they do not hold their views regarding the intrinsic value of all human beings seriously.<sup>5</sup>

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<sup>1</sup> See Lovering, R. (2013). The substance view: a critique. *Bioethics* 27(5): 263-70, Lovering, R. (2014). The substance view: a critique (part 2). *Bioethics* 28(7): 378-86, and Lovering, R. (2017). The substance view: a critique (part 3). *Bioethics* 31(4): 305-12.

<sup>2</sup> Lovering, R. (2019). A moral argument for frozen human embryo adoption. *Bioethics* [Epub ahead of print: 26 Nov 2019] DOI: 10.1111/bioe.12671.

<sup>3</sup> Lovering (2014), op. cit. note 1 and Lovering (2017), op. cit. note 1.

<sup>4</sup> Lovering (2013), op. cit. note 1 and Lovering (2017), op. cit. note 1.

<sup>5</sup> Lovering (2017), op. cit. note 1, p. 268.

Lovering's *moral argument* combines elements of the embryo rescue argument and the embryo mortality argument—the idea of rescuing embryos from death from the former, and the moral obligations we might infer from the substance view from the latter. Although he avoids explicit mention of the substance view, its proponents are amongst his targets, as can be seen by his first premise—that “the death of a frozen embryo is a very bad thing.”<sup>6</sup> As the substance view regards all human beings as equally valuable, and the death of a child or adult is generally thought of as a very bad thing, it follows that proponents of the substance view regard the death of an embryo as a very bad thing. Lovering proceeds to note that on this premise, there are millions of surplus embryos—valuable human beings—frozen at the very beginning of their lives, and in danger of being discarded and subsequently killed. Consequently, if the death of an embryo is thought to be very bad, he argues there is a moral obligation for at least some people to act to prevent at least one of these deaths.

Lovering states that one possible use of his argument is to serve as a *reductio ad absurdum* of views that entail that the death of an embryo is a very bad thing. He suggests that it might also serve to show proponents of these views as acting in a manner that is morally criticizable or immoral—that they are being inconsistent with their beliefs.

Here, we examine Lovering's claims. After outlining the moral argument in detail, we respond in two parts. First, we challenge Lovering's suggestion that the moral argument serves as a *reductio*

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<sup>6</sup> Lovering (2019), op. cit. note 2, p. 2. We mention the first premise here, but will unpack the details of Lovering's argument in the next section.

for views (such as the substance view) that entail the death of a frozen embryo is a very bad thing. Second, we show that proponents of the substance view and others who regard the death of a frozen embryo as a very bad thing are not morally obliged to adopt and gestate frozen embryos—there are far more effective strategies for preserving the lives of frozen embryos than adoption. Moreover, we point out that those who regard the deaths of frozen embryos as a very bad thing will generally regard the deaths of *all* embryos as a very bad thing, whether they are discarded embryos, aborted embryos or embryos that spontaneously abort. This entails these other embryos must be taken into account when considering moral obligations.

### **THE MORAL ARGUMENT FOR FROZEN EMBRYO ADOPTION**

Lovering's moral argument proceeds as follows<sup>7</sup>:

- P1. The death of a frozen embryo is a very bad thing.
- P2. Via embryo adoption, it is in some people's power to prevent the death of at least one frozen embryo without thereby sacrificing anything of comparable moral significance.
- P3. If it is in one's power to prevent something very bad from happening without thereby sacrificing anything of comparable moral importance, one ought, morally speaking, to do so.
- C: Therefore, said people ought to prevent the death of at least one frozen embryo via embryo adoption.

As noted above, those who believe P1 (e.g., proponents of the substance view) often claim that the death of an embryo is comparable to the death of a born human being. Hence, such deaths are a

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<sup>7</sup> Lovering (2019), op. cit. note 2, p. 2.

“very bad thing.” For the sake of argument, Lovering grants that this “moral assessment of the death of a frozen embryo is correct.”<sup>8</sup>

P2 has two parts: (i) some people *can* save at least one frozen embryo and (ii) this can be done without surrendering something “of comparable moral significance.” Claim (i) is uncontroversial. Claim (ii) requires an explanation. The death of a frozen embryo is, we are assuming, “a very bad thing.” But what “costs” come with the adoption process? Those Lovering lists include the financial cost of adoption, the costs of carrying an embryo to term, giving birth, and—if embryo adoption entails raising the child—all of the sacrifices associated with parenting more generally.<sup>9</sup> Believers in P1, Lovering claims, will usually take the death of an individual human being to be *worse* than the “negatives” listed here.<sup>10</sup> Hence, P2 applies to those particular believers in P1 (i.e., those who think the death of a frozen embryo is worse than the “costs” of adoption). In their case, if they have the power to adopt, then they can do so without “sacrificing anything of comparable moral significance.”

Lastly, P3 comes from Peter Singer. According to Singer, P3 is consistent with a wide range of moral perspectives.<sup>11</sup> It aligns with consequentialist theories because it states that we ought to do good when, on balance, doing good comes with relatively little costs. It aligns with non-consequentialist theories as well, Singer claims, “because the injunction to prevent what is bad

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<sup>8</sup> Ibid: 5.

<sup>9</sup> Ibid: 4.

<sup>10</sup> Ibid.

<sup>11</sup> Singer, P. (2011). *Practical ethics*, 3<sup>rd</sup> Ed. Cambridge, UK: Cambridge University Press.

applies only when nothing comparably significant is at stake. Thus the principle cannot lead to the kinds of actions of which non-consequentialists strongly disapprove.”<sup>12</sup> In other words, should the non-consequentialist maintain that certain actions (e.g., adultery) are wrong, then when faced with the option of (a) saving a life, but violating one’s core moral commitments or (b) failing to save a life, but maintaining one’s core moral commitments, P3 permits them to select (b).

Consequently, P1-P3, *if accepted*, together imply Lovering’s conclusion—that at least *some* people are obligated to adopt at least one frozen embryo.

### THE ABSURDITY CHARGE

Before examining the moral argument in detail, we will briefly address Lovering’s absurdity charge; we have noted that Lovering suggests that the moral argument might serve “as a *reductio ad absurdum* of sorts against” P1.<sup>13</sup> Clearly, he thinks the conclusion of the moral argument is absurd—that some people are obligated to adopt frozen embryos. But why think these types of moral obligation are absurd? There is nothing logically incoherent about them—they do not generate any contradiction. Lovering himself notes there are several organisations dedicated to adopting these embryos, which implies there are some people who believe this obligation is actionable, and clearly not absurd.

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<sup>12</sup> Ibid: 199.

<sup>13</sup> Lovering (2019), op. cit. note 2, p. 2.

As far as practices go today, adopting and gestating such an embryo may be perceived as *wildly inconvenient*. However, Lovering himself vigorously defends P3 against objections that its implications are too demanding or impractical<sup>14</sup>, and so perhaps he has another objection in mind. Either way, if there is a genuine absurdity that arises from P1, Lovering will need to articulate exactly what it is. Until then, we reject the notion that the moral argument is a *reductio* of views that accept P1 (e.g., the substance view).

### WHAT OBLIGATIONS DO P1 PROPONENTS HAVE?

Lovering is clear that his moral argument is aimed at those who believe P1 (i.e., those who believe that the death of a frozen embryo is a very bad thing) and so, we will examine the obligations P1-believers should be willing to accept with regard to frozen embryos. Lovering claims in P2 that “via embryo adoption, it is in some people’s power to prevent the death of at least one frozen embryo without thereby sacrificing anything of comparable moral significance.”<sup>15</sup> He cites the Lims as an example—a couple who made considerable sacrifices to adopt and gestate two frozen embryos that would otherwise have been discarded.<sup>16</sup> However, the Lims only demonstrate that the first part of P2 is true—clearly, it is in some people’s power to prevent the death of at least one frozen embryo. As noted above, this is an uncontroversial claim—it seems likely that many people, including the parents of frozen embryos, also have the power to prevent the death of at least one frozen embryo.

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<sup>14</sup> Ibid: 7.

<sup>15</sup> Ibid: 2.

<sup>16</sup> Ibid: 4.

The more pertinent part of P2 is Lovering's implication that the moral sacrifices associated with gestating a frozen embryo are not comparable to the moral significance of preventing the death of a frozen embryo. We will grant that for P1-believers, this is also uncontroversial. What Lovering does not consider, however, is the *opportunity cost* of the sacrifices that are required for embryo adoption. Recalling from P1 that the primary obligation is to prevent the death of frozen embryos, perhaps *adopting* a frozen embryo is not the most effective approach to doing so. Presumably, most frozen embryos are discarded because the parents already have successfully had the children they desired or have given up on further attempts at IVF, and no longer wish to pay the storage costs of their surplus embryos.<sup>17</sup> Rather than P1-believers gestating and adopting these embryos, in the short-term a more cost-effective approach might be to sponsor their storage, while also lobbying to change laws as discussed below. The lives of many more embryos could be extended with such a strategy, in comparison to direct adoption. Of course, eventually these embryos will need to be adopted, but this could buy time to judge the efficacy of other strategies to reduce the supply of frozen embryos and encourage adoption. The point remains, however, that immediate adoption may not be the most cost-effective means of saving frozen embryos.

Given the widespread and growing use of IVF, it seems that the supply of surplus frozen embryos in the future will be inexhaustible.<sup>18</sup> It seems far more conducive to the goal of preventing deaths to act in ways that will reduce or eliminate the *supply* of frozen embryos. For example, laws could

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<sup>17</sup>ReproTech—a company that specializes in long-term embryo storage—estimates that storage fees range from \$350-\$1,000 per year, depending on the facility. See ReproTech, Ltd. (2020). Embryo storage. URL = <https://www.embryostorage.com/costs/>.

<sup>18</sup> Ferraretti, A. P., Nygren, K., Andersen, A. N., de Mouzon, J., Kupka, M., ... Calhaz-Jorge, C. (2017). Trends over 15 years in ART in Europe: an analysis of 6 million cycles. *Human Reproduction Open*, 2017(2): 1-10.



be lobbied for that would prevent or discourage excess embryos being produced by IVF clinics, together with laws that prevent the destruction of surplus embryos, which if enacted, would remove the immediate threat of their disposal.<sup>19</sup> Other possibilities include holding parents responsible for their embryos and requiring that excess embryos are made available for adoption. This latter point is especially pertinent if Lovering is correct that “only 6% of couples donate their excess embryos.”<sup>20</sup> If this figure is correct, then the vast majority of parents are merely potential (i.e., not actual) donors (and so, this is something the P1-believer might work to change).

Technology should also be considered—ectogenesis is developing rapidly<sup>21</sup>, and it may be that in a few years it is possible to gestate surplus embryos without requiring a human uterus. Of course, there may be ethical issues with doing so, but nonetheless, ectogenesis is a possibility well worth exploring because it promises to remove the physical sacrifices required by gestation away from prospective adoptive parents. Also, intercountry adoption is rapidly declining and may eventually be curtailed<sup>22</sup>, presumably making adoption more difficult and strengthening demand. It is likely there will be little difficulty finding adoptive parents for surplus embryos gestated via ectogenesis. Consequently, P1-believers could cultivate an interest in this area and perhaps sponsor its

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<sup>19</sup> These types of laws are not without precedent either. Italy, for example, enacted legislation that “limited the number of embryos created during IVF to a maximum of three and required that all viable embryos be transferred into the patient’s uterus so no embryos would be stored or destroyed.” See Bayefsky, M.J. (2016). Comparative preimplantation genetic diagnosis policy in Europe and the USA and its implications for reproductive tourism. *Reproductive Biomedicine and Society Online* 3: 41-47, p. 42. Germany’s 1991 Embryo Protection law included the same types of restrictions, though it has recently been relaxed to allow for the use of PGD. See Bock von Wülfingen, B. (2016). Contested change: how Germany came to allow PGD. *Biomedicine and Society Online* 3: 60-7.

<sup>20</sup> Lovering (2019), op. cit. note 2, p. 1, n. 3.

<sup>21</sup> Usuda, H., Watanabe, S., Saito, M., Sato, S., Musk, G., Fee, E... Kemp, M. W. (2019). Successful use of an artificial placenta to support extremely preterm ovine fetuses at the border of viability. *American Journal of Obstetrics and Gynecology*, 221(69), e1–17.

<sup>22</sup> Selman, P. (2012). The global decline of intercountry adoption: what lies ahead? *Social Policy and Society*, 11(3), 381–397.

development in some way.<sup>23</sup> Additionally, given Lovering's claim that the likelihood of live birth following IVF is low (36%), it may actually save *more* lives if the P1-believer advocates for keeping excess embryos frozen until technology improves (and raises the likelihood to much more favorable levels).

Emphasizing the importance of saving as many frozen embryos as possible raises a broader issue with regard to obligations towards embryos—P1-believers will generally also hold to a more general premise, which we will call P0: the death of an embryo is a very bad thing. A frozen embryo is but one category of human embryo in danger of losing its life. As Blackshaw and Rodger note, over 50 million embryos (and fetuses) are killed annually via induced abortion, and even more spontaneously abort, dwarfing the numbers of frozen embryos that are discarded annually.<sup>24</sup> P0-believers will surely consider that they have obligations to *all* embryos, and as Blackshaw and Rodger argue, efforts to prevent their deaths should be strategically directed to where they are most effective.

This casts considerable doubt on P2—adopting a frozen embryo with all the attendant costs and time commitment may well mean sacrificing resources that could otherwise have been directed to combating induced abortion or spontaneous abortion, in addition to the strategies we have already discussed apart from adoption to deal with the frozen embryo problem. Importantly, these embryos are in far more imminent danger of losing their lives, as frozen embryos can seemingly be kept

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<sup>23</sup> For more on the claim that (from the perspective of P1-believers) ectogenesis may be worth pursuing, see Kaczor, C. (2015). *The ethics of abortion: women's rights, human life, and the question of justice*, 2<sup>nd</sup> Ed. New York: Routledge, pp. 245ff, and Simkulet, W. (2019). Abortion and ectogenesis: moral compromise. *Journal of Medical Ethics* [Epub ahead of print: 19 Sept 2019], DOI: 10.1136/medethics-2019-105676.

<sup>24</sup> Blackshaw, B.P. and Rodger, D. (2019). The problem of spontaneous abortion: is the pro-life position morally monstrous? *The New Bioethics* 25(2), pp. 332-48.

viable almost indefinitely.<sup>25</sup> Each embryo lost to induced and spontaneous abortion is certainly of comparable moral significance to each frozen embryo, but their far greater numbers entail that these issues are of much important moral significance. Indeed, Lovering himself argues that P0-believers are morally obligated to act on the issue of spontaneous abortion.<sup>26</sup>

But why stop at saving embryos? P0- and P1-believers surely also believe that other human beings are of comparable moral significance. For example, imagine P1-believers buy into the “effective altruism” that lies in the background of P3. Singer’s “effective altruism” emphasizes the importance of doing the most good that one can do with one’s resources.<sup>27</sup> Returning to Lovering’s argument, he notes that the cost of embryo adoption is somewhere around \$8,000.<sup>28</sup> GiveWell reports that as of November 2016, the median cost of saving one life via the Against Malaria Foundation is \$3,162 (ranging from \$532-\$7,179 in individual cases).<sup>29</sup> The P1-believer, therefore, has a choice: Spend \$8,000 to save no more than one life (via embryo adoption) or spend that same \$8,000 to save as many as 15 lives (via charitable donation). Effective altruism—indeed, *P3 itself*—makes it clear what the P1-believer should do here: Donate rather than adopt. This does not imply that the P1-believer thinks embryos are not persons (or not valuable). It simply operates on the assumption that each life counts equally. And fifteen is greater than one. Hence, saving up to fifteen lives is the better course of action than saving one life (at most).

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<sup>25</sup> Yuan, Y., Mai, Q., Ma, J., Deng, M., Xu, Y., Zhuang, G., & Zhou, C. (2018). What was the fate of human embryos following long-term cryopreservation ( $\geq 12$  years) and frozen embryo transfer? *Human Reproduction*, 34(1), 52–55.

<sup>26</sup> Lovering (2013), op. cit. note 1 and Lovering (2017), op. cit. note 1.

<sup>27</sup> Singer, P. (2015). *The most good you can do: how effective altruism is changing ideas about living ethically*. New Haven and London: Yale University Press.

<sup>28</sup> Lovering (2019), op. cit. note 2, p. 3 n. 14.

<sup>29</sup> GiveWell (2017). Cost-effectiveness. URL = <https://www.givewell.org/how-we-work/our-criteria/cost-effectiveness>.

This problem becomes worse for Lovering when we recall his claim that “the likelihood of a successful birth via IVF is low (around 36%).”<sup>30</sup> Assuming Lovering is right, the P1-believer really has a choice between spending \$8,000 on a 36% chance to save (at most) one life, or spending \$8,000 on a *much* higher chance of saving between one and fifteen lives.<sup>31</sup> Again, if someone accepts P3, it is abundantly clear what they must do: Donate, rather than adopt. As such, Lovering’s claim that P1-believers ought to adopt embryos—because doing so does not require that they sacrifice anything of comparable moral significance—is patently false.

## CONCLUSION

We have agreed with Lovering that some people who believe that the death of a frozen embryo is a very bad thing have the power to prevent the death of at least one frozen embryo via embryo adoption. We have denied, however, that they can do so without thereby sacrificing anything of comparable moral significance. We have shown that there are numerous other strategies for saving frozen embryos that are likely to be far more effective. We have also noted that those who believe the death of a frozen embryo is a very bad thing are likely to also believe that the deaths of embryos by induced abortion or spontaneously abortion are also a very bad thing—and so these far greater numbers of deaths must also be considered when determining moral obligations. Finally, the costs of embryo adoption may be such that these resources are better directed to saving the lives of

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<sup>30</sup> Lovering (2019), op. cit. note, 2, p. 4.

<sup>31</sup> The Against Malaria Foundation, for example, reports that “even with holes” malaria nets—which cost only \$2.00 apiece—are “99% effective.” Furthermore, they estimate that for “every 100-1,000 nets we put over heads and beds, one child doesn’t die.” Based on their estimates, therefore, this means that (approximately) for every \$200-\$2,000 spent, one child doesn’t die. Thus, even in the worst case scenario, the P1-believer may suppose their \$8,000 will save somewhere around four lives if donated (as opposed to securing a *fraction of a chance* at saving one life, if embryo adoption is pursued). See, Against Malaria Foundation (2020). Why nets? URL = <https://www.againstmalaria.com/WhyNets.aspx>.

humans who are already born and at risk of preventable diseases such as malaria—indeed, Peter Singer’s effective altruism entails this is obligatory.