Philosophy & Technology
https://doi.org/10.1007/s13347-020-00427-2

RESEARCH ARTICLE

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Ectogestation and the Problem of Abortion

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Received: 14 July 2020 / Accepted: 10 September 2020/

Abstract

Ectogestation involves the gestation of a fetus in an ex utero environment. The possibility of this technology raises a significant question for the abortion debate: Does a woman's right to end her pregnancy entail that she has a right to the death of the fetus when ectogestation is possible? Some have argued that it does not Mathison & Davis (*Bioeth* 31:313–320, 2017). Others claim that, while a woman alone does not possess an individual right to the death of the fetus, the genetic parents have a collective right to its death Räsänen (*Bioeth* 31:697–702, 2017). In this paper, I argue that the possibility of ectogestation will radically transform the problem of abortion. The argument that I defend purports to show that, even if it is not a person, there is no right to the death of a fetus that could be safely removed from a human womb and gestated in an artificial womb, because there are competent people who are willing to care for and raise the fetus as it grows into a person. Thus, given the possibility of ectogestation, the moral status of the fetus plays no substantial role in determining whether there is a right to its death.

Keywords Ectogenesis · Ectogestation · Abortion · Parental obligation · Genetic privacy · Property rights

1 Introduction

Ectogestation involves the gestation of a fetus in an ex utero environment.[1] The possibility of this technology raises a significant question for the abortion debate: Does a woman's right to end her pregnancy entail that she has a right to the death of the fetus when ectogestation is possible? Some have argued that it does not (Mathison and Davis, 2017; Blackshaw and Rodger, 2019; Hendricks, 2018; Kaczor, 2018). Others claim that, while a woman alone does not possess an individual right to the death of the

[1]For a general overview of ectogenesis, see Cannold (1995); Takala (2009); Bulletti et al. (2011).

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fetus, the genetic parents have a collective right to its death (Räsänen, 2017). Still some have thought that whether a woman has a right to the death of the fetus hinges on whether the fetus is a person with a moral status (Warren, 1984). If so, then perhaps the possibility of ectogestation will not substantially change the abortion debate. In this paper, I argue that the possibility of this technology will radically transform the problem of abortion. The argument that I defend purports to show that, even if it is not a person, there is no right to the death of a fetus that could be safely removed from a human womb and gestated in an artificial womb, because there are competent people who are willing to care for and raise the fetus as it grows into a person. Thus, given the possibility of ectogestation, the moral status of the fetus plays no substantial role in determining whether there is a right to its death.

Some clarification is in order. Full ectogenesis refers to fetal gestation that occurs entirely independent of a human womb. Partial ectogenesis refers to the technology that would allow for a fetus to be transferred to and gestated in an artificial womb and, thereby, extend the viability of the fetus.[2] Any potential benefits and moral implications involved will likely depend on what type of ectogenesis is being discussed.[3] I shall focus on partial ectogenesis and refer to this technology as "ectogestation." Some think that ectogestation will change the shape of the abortion debate because it would allow for non-lethal termination of a pregnancy that does not violate a woman's right to autonomy.[4] Thus, the advent of ectogestation technology suggests that a woman's choice to terminate her pregnancy will not automatically result in the death of the fetus. The focus of the controversy would then shift to a question regarding whether there is a right to the death of the fetus, once ectogestation is a safe and widely available alternative to lethal abortions.

In Section 2, I argue that, even if we assume that the fetus is not a person, given the possibility of ectogestation, there is no right to the death of the fetus. In Sections 3–5, I consider and reject several objections. These claim that the right to secure the death of the fetus is derived from a more basic right: (i) the right to property, (ii) the right to avoid parenthood, and (iii) the right to genetic privacy. In Section 6, I consider and reject the claim that the biological parents possess a collective right to the death of the fetus. In Section 7, I conclude.

2 The Main Argument

Some may resist the claim that ectogestation will make any morally significant difference for the abortion debate. Perhaps this is true, if the problem of abortion ultimately depends on whether the fetus is a person. To show that, given the possibility of ectogestation, the moral status of the fetus makes no substantial difference, what is needed is an argument demonstrating that there is no right to the death of the fetus, even if the fetus is not a person.

[2] For a discussion of these issues, see Di Stefano et al. (2020).

[3] For a discussion of the potential benefits of ectogenesis, see Kimberly et al. (2020); Takala (2009). For a discussion of the potential problems of ectogenesis, see Eichinger and Eichinger (2020); Horn (2020); Murphy (1989).

[4] For a discussion of this point, see Mathison and Davis (2017), pp. 313–314.

The argument that I shall defend is simple but powerful. Either the fetus is a person or not. If it is a person, then there is no right to its death. And if the fetus is not a person, then there still is no right to its death. Hence, there is no right to the death of the fetus once it is possible to safely transfer the fetus from a human womb to an artificial womb. I shall call this the "Main Argument." It can be stated as follows:

(M1) Either the fetus is a person or not.
(M2) If the fetus is a person, then given the possibility of ectogestation, at least in most cases, a woman does not have the right to the death of the fetus, though she has the right to end her pregnancy.
(M3) If the fetus is not a person, then given the possibility of ectogestation, at least in most cases, a woman does not have the right to the death of the fetus, though she has the right to end her pregnancy.[5]
(M4) Therefore, it does not follow from a woman's right to end her pregnancy that she likewise has a right to the death of the fetus.

The first premise is clearly true, so let us consider (M2). Suppose that the fetus is a person with a moral status and ectogestation is a safe and widely available alternative to lethal forms of terminating one's pregnancy. Would there be a right to the death of the fetus in such a case? No. To see why, recall Thomson's (1971) claim that if a miracle were to occur and the violinist survives once you unplug yourself from him, then "you have no right to be guaranteed his death" (p. 66). What if ectogestation is such a miracle?

My claim is that (M2) is supported by the intuition that if the violinist were to survive being unplugged, then there would not be a right to secure his death. So, assuming that the fetus is a person and ectogestation is a safe and widely available option, then, presumably, most would agree that there would not be a right to secure its death.[6] What is not clear, however, is whether this would be true, only if the fetus is a person. The premise that needs to be defended is (M3).

Suppose that a fetus is not a person at any point during its gestation either in a human womb or in an artificial womb.[7] The reason there is no right to the death of a fetus that can be safely detached from a human womb is because there are other competent individuals in the moral community who desire to care for and raise the fetus in a loving home as it continues to grow. This reason is analogous to Warren's (1984) explanation for why infanticide is morally wrong, even if an infant is not a person. Warren argues:

> Another reason why infanticide is usually wrong, in our society, is that if the newborn's parents do not want it, or are unable to care for it, there are (in most cases) people who

[5] For the purpose of this paper, I am assuming that ectogestation will be safe, widely available, and sufficiently inexpensive and would not cause serious harm to the pregnant woman. For a discussion of these points, see Blackshaw and Rodger (2019), p. 78; and McMahan (2007), p. 156.

[6] Mathison and Davis (2017), p. 314, and Räsänen (2017), p. 701, claim to remain neutral regarding fetal personhood.

[7] It should be noted that I am assuming that the fetus is not a person for the purpose of this argument. There are likely a number of morally relevant issues one could investigate regarding whether a fetus gestating in an artificial womb counts as being born (see Romanis (2018) and Colgrove (2019)). For a discussion of physiological differences between fetuses and newborns that one might think are morally relevant, see Kingma and Finn (2020). For a discussion of birth as a morally relevant point in the development of a fetus, see Burin (2014) and Bermúdez (1996).

> are able to and eager to adopt it and provide a good home for it. Many people wait years for the opportunity to adopt a child, and some are unable to do so even though there is every reason to believe that they would be good parents. The needless destruction of a viable infant inevitably deprives some person or persons of a source of great pleasure and satisfaction, perhaps even impoverishing their lives (p. 117).

So, as long as there are competent and responsible adult persons who desire to provide care and support for the fetus, then securing its death would frustrate their abilities to fully express their autonomy, and this would be morally wrong.

To see why we should accept (M3), consider the following case: Suppose that Smith adopts a dog from the humane society, but is not fond of it. Though the dog is healthy and is not suffering, Smith regrets the decision and chooses to put the dog down. Suppose also that Jones is aware of Smith's decision to kill the dog and offers to take responsibility of it and care for it instead of killing it. Let us further suppose that Jones is a competent dog owner and desires to give Smith's adopted dog a loving home. Is Smith morally obligated to give the dog to Jones instead of killing it? Even if we assume that the dog is not a person, Smith would have a legal right but not a moral right to kill the dog in this case because Jones is there and is willing to love and care for it.

Now, imagine a world where the following conditions obtain: (i) fetal transfer is widely available and sufficiently inexpensive, (ii) fetal transfer is no more invasive or risky for a pregnant woman than lethal forms of terminating one's pregnancy are currently, and (iii) there are competent and responsible adults willing to love, care for, and support the fetus. If ectogestation is possible such that these conditions obtain, then, at least in most cases, there would not be a right to the death of the fetus.[8] Indeed, Warren (1984) seems to have recognized this possibility when responding to the infanticide objection. Warren states:

> Thus, while the moment of birth may not mark any sharp discontinuity in the degree to which an infant possesses a right to life, it does mark the end of the mother's absolute right to determine its fate. Indeed, *if and when a late-term abortion could be safely performed without killing the fetus, she would have no absolute right to insist on its death* (e.g., if others wish to adopt it or to pay for its care), for the same reasons that she does not have a right to insist that a viable infant be killed (p. 118, my emphasis added).

This can be put in the form of a conditional, which I will call "Warren's Conditional":

> If a fetus can be safely removed from the woman's womb without violating her right to autonomy, and the conditions needed to provide the required care for the fetus exist, then in most cases, the woman would not have a right to the death of the fetus.[9]

[8] The term "in most cases" is a ceteris paribus clause, insofar as there may be some exceptions, e.g., in the case of rape or if in cases where it is clear that the fetus would suffer and live a short life. There may be other important exceptions, e.g., if there is no way to identify competent individuals willing to care for the fetus.

[9] What if we cannot identify anyone willing to care for and raise the fetus as it grows? This is a fair question, insofar as it suggests that there may be practical and legal problems entailed by this view. But if there is no one willing to care for the fetus, this would not show that there is a right to its death, since Warren's Conditional would be trivially true.

Notice that the antecedent conditions of Warren's Conditional do not mention the moral status of the fetus. This is important, since I am assuming that the fetus is not a person. Hence, even if the fetus is not a person, it does not follow that there is a right to secure its death, when ectogestation is possible.

It might be objected that ectogestation would force a woman to undergo an invasive surgery comparable to a cesarean section. If this would violate a woman's right to autonomy, then it would be morally and legally problematic. Presumably, this would be sufficient to show that the woman would have a right to secure the death of the fetus in such cases. So, even if it is true that at some point ectogestation technology will become widely available, lethal forms of terminating one's pregnancy will still be legal.[10] As Overall (2015) suggests:

> …such a termination procedure would…involve taking something from the woman's body without her consent. It would be analogous, on the part of healthcare workers and the state, to deliberately stealing a body part, although arguably worse in its long-term effects. No one else has a right to seize one's own body parts (blood, bone marrow, organs, gametes, DNA) or body products (including embryos and fetuses) against one's will (p. 130).

While the advent of ectogestation technology will likely raise numerous important medical and legal challenges regarding how it should be implemented, it is not clear that the mere fact that such challenges exist is sufficient to show that there would be a right to the death of the fetus.

Additionally, this argument misleadingly suggests that when ectogestation is possible, a pregnant woman's right to autonomy can be violated, if she wants the fetus to die. If a pregnant woman decides to end her pregnancy, this will result in the fetus being removed from the womb, even if it is destroyed in the process. If the woman chooses against ending the pregnancy, then of course it would be impermissible to force her to undergo surgery involving fetal transfer. But why should we think that ectogestation would involve forcing a woman to undergo a procedure against her will?

Perhaps the objection is that ectogestation would involve an invasive and risky surgery analogous to a cesarean section. It could be argued that, unless the pregnant woman gives consent to this risky and invasive surgery, forcing her to undergo it would violate her autonomy. Of course, this does not mean that if she does not give consent to the procedure, then there is a right to the death of the fetus. If consent is given, all this would mean is that the pregnant woman has agreed to terminate the pregnancy, not to secure the death of the fetus. This is because ectogestation divorces any necessary link between termination of the pregnancy and the death of the fetus.[11] Furthermore, it is not clear that ectogestation would necessarily involve an invasive and risky surgery. And even if it does, it is not clear that this would be sufficient to conclude that there is a right to the death of the fetus.

It is not incoherent or implausible to think that fetal transfer would involve a surgery that is at least equally or, perhaps, even less invasive and risky than current lethal forms of terminating one's pregnancy. For instance, McMahan (2007) argues that a pregnant

[10] For a discussion of these issues from a feminist perspective, see Horn (2020).
[11] For a discussion of this point, see Blackshaw and Rodger (2019), pp. 77–78.

woman would not have a right to the death of the fetus, even if ectogestation is substantially worse (i.e., invasive or risky) than lethal abortions (p. 156).[12] For the purpose of this paper, I am assuming that ectogestation is sufficiently safe and no more invasive or risky than what our current technology allows for in the case of lethal abortions. Likewise, I am assuming that ectogestation will not place any substantial burdens on the pregnant woman—financial, psychological, or otherwise—beyond what lethal abortions currently do. So, if conditions (i)–(iii) stated above obtain, then there will not be a right to the death of the fetus.

If one wants to dispute the Main Argument, they need to show that (M3) is false. But since (M3) is supported by Warren's Conditional one must show that it is false. And one cannot simply reject the antecedent conditions in Warren's Conditional, since this would make the premise trivially true. In order to show that Warren's Conditional is false, one must show that there is a right to the death of the fetus, even when the antecedent conditions have been satisfied. Let us now consider why one might think that there is a right to the death of the fetus even when ectogestation is possible.

3 Property Rights

In this section, I shall consider an argument that Räsänen (2017) offers in support of the claim that the biological parents have a collective right to the death of the fetus.

Someone might object to Warren's Conditional by arguing that, even if Jones wants to care for Smith's dog, Smith has a right to secure the death of his dog because Smith owns the dog. That is, if we assume that the dog is not a person and lacks a right to life, then Smith is not morally obligated to give the dog away to Jones. Likewise, if we assume that the dog and fetus are in the same moral category, insofar as they are not persons with a right to life, then it follows that the biological parents would have a right to secure the death of the fetus because they own the fetus. We can call this the "Property Rights" argument:

(PR1) If the fetus is property of the genetic parents, the genetic parents have a collective right to destroy their fetus.
(PR2) The fetus is property of the genetic parents.
(PR3) Therefore, the genetic parents have a collective right to destroy their fetus.[13]

This argument is valid, but is it sound? It is not clear that (PR1) is true, since one could argue that even if it is granted that the biological parents in some sense own the fetus, it might not be true that they can do whatever they want with it.

There are limitations to what one can do with their property. For instance, if someone owns a historic building, it does not follow that they can have it destroyed.[14] Suppose that Smith owns the Paul Revere House located in Boston, Massachusetts, and plans to have it razed. Suppose also that Jones is the president of a historic building

[12] For a discussion of this point, see Blackshaw and Rodger (2019), p. 78
[13] There is some dispute about how to formulate this argument. Kaczor (2018) (p. 637) argues that Räsänen's formulation is invalid and proposes this formulation as a suitable replacement.
[14] For a discussion of this point, see Mathison and Davis (2017), p. 318.

society, and this society wants to purchase the Paul Revere House from Jones so that they can care for and maintain it. But if (PR1) is true, then Smith should be able to have this historic building destroyed, even if Jones and the society are willing to care for and maintain the building. This seems preposterous.

Intuitively, Smith would be doing something immoral by having the historic building razed. So, Smith would not have a right to destroy his property because there are competent people who are willing to care for what Smith owns but no longer wants. It does not follow that Smith can do whatever he wants with his property. Likewise, even if the biological parents own the fetus, it does not follow that they have a right to the death of the fetus. Thus, it is reasonable to conclude that (PR1) is either false or unsupported.

What about (PR2)? Why should we believe that this premise is true? One might think that the biological parents own the fetus because they own their genetic material. For example, in the case of in vitro fertilization, the genetic donors arguably have a right to destroy the unused cryopreserved embryos. And if there is no morally relevant difference between a fetus and a cryopreserved embryo, then biological parents might have a right to destroy the fetus that they helped to create.[15] Of course, one could always bite the bullet and accept that the genetic donors do not own the cryopreserved embryos.[16] This response is counterintuitive, but a live option.

There is a better reason to reject (PR2). Arguably, an infant is not the property of the biological parents. So, if (PR2) is true, then there must be some difference between fetuses and infants, such that fetuses are property, but infants are not. But it is difficult to see what might count as a morally significant difference between fetuses and infants that would give us reason to believe that fetuses are owned by their biological parents.

Consider Kingma and Finn's (2020) appeal to the metaphysics of pregnancy and the technology of artificial wombs to make a conceptual distinction between fetuses and neonates.[17] Kingma and Finn (2020) claim that "to be a fetus is to have a physiology characteristic of a fetus; and to be a neonate is to have a physiology characteristic of a neonate" (p. 359). One could then argue that fetuses and infants are different in their physical characteristics. But why would this count as being morally relevant? It is not clear that a difference in physical characteristics is sufficient to justify the claim that fetuses are the property of the biological parents.

Perhaps birth designates a morally significant point in the development of the fetus, such that post-birth newborn infants are not property, but pre-birth fetuses are property of the genetic parents.[18] Birth may be a remarkable point in the transition from fetal life to neonate life, but it is not clear why it would give us reason to think that a fetus is the property of the genetic parents. And the claim that birth signifies the moment when a fetus transitions from being owned to something else presupposes what Kingma (2019) describes as the "Parthood View." On this model of pregnancy, a fetus is a proper part of the pregnant woman similar to a woman's organs. Kingma (2019) calls the negation

[15] There may be important differences between cryopreserved embryos and fetuses. For example, there are biological differences between, say, a fetus before zygotic twinning occurs and a fetus moments before birth. But it is not clear that any of these are morally significant. For a discussion of this issue, see Mathison and Davis (2017), pp. 317–318.

[16] For a discussion of this response, see Mathison and Davis (2017), pp. 317–318.

[17] For a discussion of these issues, see Kingma and Finn (2020), pp. 358–359.

[18] For a discussion of such a view, see Burin (2014) and Bermúdez (1996).

of this model the "Containment View" (p. 613). On this model, there is no difference between fetuses and newborn infants; fetuses are represented as "already-separate individuals" contained within the pregnant woman's body (Kingma, 2019, p. 614). Kingma and Finn (2020) claim that one need not accept the Parthood View in order to show that there are metaphysical and conceptual differences between fetuses and newborn infants. But in order to show that a fetus is property of the genetic parents, one must reject the Containment View, and this is just another way of saying that one must accept the Parthood View. Moreover, if the fetus is a proper part of the pregnant woman's body, then, at least for late-term fetuses, the pregnant woman would have duplicate hearts, livers, genitalia, and so on.[19] This seems highly problematic. So, the most reasonable position is that (PR2) is either false or unsupported.

4 Parenthood Avoidance

Some have thought that a biological parent can be harmed by non-transferable parental obligations and what Cohen (2008) calls "attributional parenthood" because biological parents may continue to feel responsible for a child after giving the child up for adoption and similarly in cases of surrogacy and gamete donation (p. 81).[20] As a result, biological parents might experience psychological harms. One could argue that the only way to avoid these psychological harms would be to secure the death of the fetus.[21] If this is right, then, presumably, it could ground the right to the death of the fetus, which would suffice to show that Warren's Conditional is false. I shall call this the "Parenthood Avoidance" argument:

(PA1) If the couple has the interest to avoid the harm of parental obligations, then the couple has a right to the death of the fetus to avoid the harms of parental obligation.
(PA2) The couple has the interest to avoid the harm of parental obligations.
(PA3) Therefore, the couple has a collective right to the death of the fetus to avoid the harm of parental obligation.[22]

This argument is clearly valid. But is it sound? What reasons could be used to support the truth of the premises? Consider Overall's (2015) claim that biological mothers have a right not to become a biological parent. Overall states:

> Women who seek pregnancy termination are usually choosing that there be no being at all who is there genetic offspring. They are choosing not only to be social mothers, but also not to be biological mothers. In other words, they are claiming a right not to reproduce (…). When women obtain a termination of pregnancy, they

[19] I want to thank and give credit to an anonymous reviewer for bringing the importance of this point to my attention.
[20] For a discussion of this claim, see Langford (2008), p. 265.
[21] For a discussion of this claim, see Räsänen (2017), pp. 698–699.
[22] There is some dispute about how to formulate this argument. Kaczor (2018) (p. 635) argues that Räsänen's formulation is invalid and proposes this formulation as a suitable replacement.

> are (…) acting upon their legitimate reproductive right not to become a biological parent (p. 46).

Räsänen (2017) agrees with Overall and uses the above passage to support (PA2). But Räsänen argues that, since procreation is a collective act, the right to the death of the fetus must be a collective right possessed by both biological parents (p.701). But one might think that (PA2) is simply implausible, since the potential harms caused by attributional parenthood do not seem to warrant killing the fetus.[23] Of course, this is an empirical issue, and currently there is no empirical work being done on the potential harms or benefits that might arise from ectogestation, since the technology does not yet exist. So, strictly speaking, there is no empirical evidence one could appeal to in support of either (PA2) or its negation. As a result, this objection only shows that (PA2) is unsupported, not that it is false. But if we cannot rely on empirical evidence to argue for or against (PA2), then what sort of evidence is available?

Perhaps we can use the following type of evidence: Surveys of women who report that the psychological harms they might experience from attributional parenthood would be sufficiently great in the case of ectogestation to ground a right to the death of the fetus. For example, Cannold (1995) claims that women would continue to feel obligated toward their biological child, even when their legal obligations have been dissolved.[24] As Mathison and Davis (2017) acknowledge:

> One study suggests that, in a scenario in which the choice is between aborting the foetus and having it brought to term in an artificial womb, or aborting it and ensuring its death, many woman who consider abortion to be a morally permissible option would choose the latter. Several women reported that ectogenesis would leave them with a lingering sense of obligation toward the child even if no legal obligation were maintained (p. 315).[25]

While this is not conclusive evidence in support of (PA2), it does provide some support for the claim that the biological parents have an interest to avoid the harms of attributional parenthood.

Others have argued that (PA2) should be rejected on the grounds that, if fetal transfer were to occur sufficiently early during the gestation of the fetus, then it might be that adoption causes serious psychological harms, not ectogestation. For example, Kaczor (2018) claims:

> It could be that after 9 months of pregnancy, psychological bonds develop such that adoption becomes traumatic. It could be that the social aspects of pregnancy, the knowledge of other people about a women's pregnancy, make adoption at 9 months difficult. If ectogenesis is used a short time after pregnancy is detected, there may not be sufficient time to develop such bonds or for the social aspects of

[23] For a discussion of why the harms caused by attributional parenthood are not sufficiently great to warrant killing the fetus, see Hendricks (2018), p. 398, and Kaczor (2018), p. 635.

[24] For a more recent study that echoes the findings of Cannold (1995), see Simonstein, and Mashiach–Eizenberg (2009).

[25] Mathison and Davis (2017) (p. 315) go on to argue that even if there are some harms caused by attributional parenthood, they are not sufficiently great to warrant killing the fetus.

> pregnancy to be relevant. So, it could turn out that full-term birth, but not ectogenesis, leads to trauma (p. 635).

While Kaczor's objection might apply in cases of fetal transfer that occur early during the pregnancy, it leaves open the possibility that late-term fetal transfers and ectogestation could also cause serious psychological harms to the biological parents. And even if it is granted that adoption, not ectogestation, could cause psychological harms to the biological parents, it does not follow that adoption in fact causes such harms. Kaczor fails to offer any reason to think that adoptions cause the kind of psychological harms required to make this objection work.

But Kaczor does offer several additional arguments for why we should reject (PA2), none of which show that attributional parenthood fails to cause any significant harms to the biological parents. Rather, they all divert attention away from this issue. One such argument claims that abortion itself can cause serious psychological harms to the biological parents (p. 635). If true, this might be an interesting point, since there is some evidence where women report that they would prefer abortion to ectogestation (Cannold 1995, pp. 55–64). Suppose that abortion does cause harm to the biological parents. This does not give us reason to reject (PA2), since it could also be true that biological parents are harmed by attributional parenthood. Kaczor's appeal to the claim that abortion might be harmful is simply a red herring.

Kaczor offers another argument that is more interesting, but still unsuccessful. Biological parents of a particular fetus cannot have a right not to be biological parents of that fetus, since they already are the biological parents of that fetus. So, according to Kaczor, the notion of parenthood being used in the argument is incoherent (p. 635). Kaczor states:

> …someone who already is a biological parent cannot have the right not to become a biological parent. Rights have to do with choices that are possible. But someone who *already* is a biological parent to an individual cannot *become* a biological parent to that individual. Once a human being has been conceived, the man and the woman have already become biological/genetic parents, so the opportunity to exercise the putative right not to *become* a genetic/biological parent has passed—that ship has sailed (p. 635; emphasis in the original).

This objection has the virtue of being correct, but it fails to show (PA2) is false. The argument does not require that we understand the notion of avoiding parenthood in terms of a right not to become a parent. For example, Blackshaw and Rodger (2019) suggest that we should understand it in terms of a biological parent's right not to *be* a biological parent (p. 79). But the objection is still worth considering because it forces us to pay attention to what is meant by the claim that there is a right to avoid parenthood.

To my mind, the argument only works if we construe what is meant by "parenthood avoidance" in terms of a right to avoid remaining a biological parent. Ectogestation only allows one to avoid being custodial parents; it does not allow one to avoid being biological parents. So ectogestation might violate one's ability to express the alleged right to avoid *being* a biological parent. The premise may still be problematic for other reasons, but it is not obviously false.

One could argue that the argument from Parenthood Avoidance is unsound because there simply is no right to avoid parenthood in the first place. For example, Mathison and Davis (2017) grant that biological parents have a right not to be discriminated against but deny that they have a right to the death of the fetus in order to avoid such harms (p. 315). They offer an argument by analogy with surrogate mothers, gamete donation, and adoption. Since we do not believe there exists a further right to avoid parenthood in these cases, we should conclude that there is no right to avoid the potential harms of attributional parenthood in the case of ectogestation. Here is what Mathison and Davis say:

> Surrogate mothers, egg and sperm donors, and women or couples who give their child up for adoption may all experience the harms of attributional parenthood, as well as other felt obligations more generally. If the right against the harms of attributional parenthood entail further rights to prevent or avoid such harms in the case we have been considering, they should entail similar rights in these cases as well. And yet, in these other cases, we do not typically think that the existence of such harms give rise to any further rights to the biological mother or father (p. 315).

This looks like a compelling reason to reject the argument from Parenthood Avoidance, but Räsänen (2017) claims that it relies too heavily on one's intuitions (p. 699). According to Räsänen, these "intuitions alone are not a sufficient reason to believe that genetic ties, or the fact that the parents have caused their child to exist, do not matter in the case of gamete donation, surrogate motherhood and—ectogenesis abortion" (p. 699). Is it true that the argument from analogy relies exclusively on intuition?

In the case of surrogacy, it is not our intuitions that tell us that surrogate mothers are not afforded visitation rights, shared custodial rights, or any other rights. If such rights exist, then they would likely play some role in the surrogate mother's ability to avoid the harms she might experience as a result of attributional parenthood (Mathison and Davis 2017, p. 315). It is the fact that surrogate mothers are not afforded any such rights, which demonstrates that no such rights exist, not our intuitions regarding surrogacy.

Räsänen (2017) goes on to argue that Mathison and Davis "omit the work of numerous philosophers who argue that gamete donors *do have* parental obligation (and perhaps rights) toward the child produced from gametes" (p. 699).[26] And if we have good reason to think that the biological parents could be harmed in the cases omitted by Mathison and Davis, then we will also have good reason to believe that they could be harmed in cases involving ectogestation (p. 699). Räsänen takes this to show that we should reject the argument from analogy. But the objection depends on what the omitted authors actually say. Perhaps they were omitted because they are not relevant or they claim that surrogacy, gamete donation, and adoption are immoral, not because they provide support for the negation of their position.

For example, Brandt (2016) claims that "even at a broad level of generality, it is unclear what such responsibilities would entail" (p. 674). And Moschella (2014) argues that gamete donation is "always morally impermissible, because it necessarily

[26] Some of the authors that Räsänen mentions are Nelson 1991, Moschella 2014, and Brandt, 2016.

constitutes an injustice with respect to the child that one's donation helps to bring into existence" (p. 438). Indeed, Moschella thinks that gamete donation is immoral even if conception never occurs (p. 438). And Nelson (1991) argues that surrogacy and adoption are also immoral (p. 58). These authors all hold that biological parents have non-transferable obligations toward their genetic offspring. And surrogacy, gamete donation, and adoption, according to these authors, are immoral because they necessarily involve the biological parents failing to fulfill their obligations. It seems rather strange that an immoral action would entail some extra right possessed by the biological parents.

Of course, Räsänen mentions these authors simply to show that some philosophers have competing intuitions regarding whether there exists an extra right in these cases. But it is not clear that this is a sufficient reason to think that the argument from analogy fails. What is needed is more than merely pointing out that intuitions sometimes diverge. Moreover, it is not clear that the authors omitted by Mathison and Davis even target the right intuitions.

For example, some of the authors that Räsänen mentions endorse a causal theory of parental obligation, while others endorse a genetic theory of parental obligation. This suggests that the intuitions in question involve the sufficient conditions for parental obligation, not the claim that there exists an extra right in these cases that might entail a right to avoid parenthood. As Hanna (2018) suggests regarding one's intuitions about gamete donation, they are "likely to be affected by one's more general view on the moral basis of parental duties" (p. 267). When we consider a causal theory of parental obligation, "the fact that one has voluntarily caused a child to exist is sufficient (though perhaps not necessary), to show that one has special duties toward this child" (p. 267). The relevant intuitions underpinning what Hanna says about parent obligations do not negate our more general intuitions regarding the moral permissibility of surrogacy, gamete donation, and adoption (p. 267). So, the fact that our intuitions can diverge is not sufficient to conclude that the argument from analogy fails.

5 Genetic Privacy

In this section, I shall consider an argument that claims that the right to the death of the fetus is grounded in a more basic right to genetic privacy. I shall call this the "Genetic Privacy" argument:

(GP1) If ectogestation violates the genetic privacy of the genetic parents of the fetus, then genetic parents have a collective right to the death of the fetus.
(GP2) Ectogestation violates the genetic privacy of the genetic parents.
(GP3) Therefore, genetic parents have a collective right to the death of the fetus.[27]

This argument is valid, but is it sound? In support of (GP2), Räsänen (2017) invites us to imagine the following hypothetical situation: "If a mad scientist finds a way to clone

[27] There is some dispute about how to formulate this argument. Kaczor (2018) (p. 636) argues that Räsänen's formulation is invalid and proposes an alternative formulation as a suitable replacement. To avoid confusion, I use the term 'ectogestation' in this formulation of the argument.

humans, steals my DNA and creates a fetus that is genetically identical to me, which he then gestates in an artificial womb, my right to genetic privacy is violated" (p. 699). But what does it mean to have a right to genetic privacy? Does it mean that we have a right for our genetic material not to exist out in the world, or does it simply mean that we have a right for our genetic material not to be misused?

Suppose you lived all your life reasonably believing that you had no siblings only to find out through your mother's late-in-life confession that you actually have a genetic twin. It would be quite peculiar to think that the mere existence of a genetic twin harms you in a morally significant way, such that you have a right against your twin's existence. But, if the right to genetic privacy means that you have a right for your genetic material to not exist out in the world without your consent, then arguably your right would have been violated in this situation. A much more plausible understanding of what is meant by genetic privacy is that we have a right for our genetic material not to be misused or used without our consent. But why would ectogestation entail that one's genetic material would be misused?

There are two questions to be answered here: (i) would ectogestation necessarily (or almost always) involve the misuse of one's genetic material? And (ii) if the answer to (i) is yes, then does this entail a right to the death of the fetus? Let us assume that a plausible case for (ii) can be made. What is not clear is whether the correct answer to (i) is yes. To make this objection work, one would need to give an independent reason to believe the correct answer to (i) is yes, and Räsänen is silent on this point. So, either the right to genetic privacy is too strong, implying that the mere existence of a genetic twin would cause the kind of harm that a right is supposed to protect against when it does not, or it is too weak, implying only that we have a right for our genetic material to not be misused. In either case, ectogestation would not necessarily involve the misuse of one's genetic material. And even if Räsänen can give a plausible reason to believe that the answer to (i) is yes, there is still good reason to believe the correct answer to (ii) is no.

The appeal to genetic privacy only works if the fetus is a clone. But since 50% of the fetus's genetic material comes from each of the genetic parents, the right to the death of the fetus cannot be grounded on a right to genetic privacy. As Mathison and Davis (2017) argue:

> Why should we think that this threshold is morally important? Is it twice as important as the 25% of genetic material that each grandparent has? And what about the genetic overlap between siblings? It seems very implausible to think that when my biological sister releases her genetic information without my consent, she has thereby violated my right to genetic privacy. Thus, a defense of the 50% threshold is needed; but we doubt that such a defense could be given that would not rely on special pleading (pp. 316-317).

Is this response sufficient to show that the correct answer to (ii) is no? Räsänen (2017) argues that it is not and that Mathison and Davis have misunderstood the nature of the right to the death of the fetus. Räsänen admits that a woman alone does not have a right to the death of the fetus, but argues that the genetic parents jointly possess a collective right to its death (p. 700). As Räsänen states: "when the genetic parents agree and they both want the death of the fetus…it is morally permissible for them to do so since they

together share 100% of the fetus'…genetic material, and gestating the fetus…against their consent violates their rights" (p. 700). But why should we believe that this collective right exists?

One could argue that since biological parents collectively contribute 50% of the genetic material, they have a collective right to do what they desire with their collective material. For example, Räsänen claims that since sexual intercourse is a collective act that involves two people, "it is those two persons that together have responsibilities for the consequences" (p. 701). Hence, Räsänen claims that, even though the right to genetic privacy does not ground a woman's right to the death of the fetus, it does ground a collective right to its death, which is possessed by both of the biological parents. While it is obviously true that sexual intercourse requires two people, it is not clear that this would entail that the biological parents jointly possess a collective right to the death of the fetus. What is needed is a positive reason to think that the procreative act does entail a collective right to the death of the fetus. Until such an argument is provided, the most reasonable position is that it is simply unclear whether the argument from genetic privacy is sound.

6 Why the Right to the Death of the Fetus Is Not a Collective Right

In this section, I shall consider Räsänen's claim that biological parents possess a collective right to the death of the fetus and argue that no such right exists.

Recall that Räsänen (2017) argues that, since sexual intercourse is a collective act between two people, the right to the death of the fetus is a collective right. Here is what Räsänen says: "when a man and woman are having sex, they implicitly accept the possible consequences of their activity" (p. 701). Räsänen's argument can be spelled out in more detail as follows:

> Because for the conception to happen, there needs to be two persons performing the action (intercourse), it is those *two* persons that *together* have responsibilities for the consequences. A right to the death of the fetus, therefore, and for the reasons mentioned earlier, is a collective right (p. 701).

But what is the argument for the claim that sex as a collective act entails that the right to the death of the fetus, if it exists, is a collective right? Räsänen offers the following argument from analogy with marriage:

> When only one person wants to use a collective right, he or she cannot use that right. When Bob wants to marry Jane, but Jane does not want to marry Bob, Bob cannot use his right to marriage, because a right to marriage is a collective right and therefore cannot be used alone. Similarly, when Bob wants the fetus to die, but Jane wants it to live, Bob cannot use his right to the death of the fetus because this right is not an individual but a collective right (p. 701).

Räsänen's view seems to be that a right to the death of the fetus is a collective right for the same reasons that a right to marriage is a collective right. But, this only shows that if there is a collective right to the death of the fetus, then the right cannot be used unless

both biological parents decide to use it. We still do not have an argument for the claim that a collective right to the death of the fetus exists.

To be fair, Räsänen does appeal to Williams's defense of the claim that the right to marriage is a collective right, but it is not clear that this will help. Williams (2011) states:

> Like the right to assemble, the right to marry cannot be exercised by a single individual. One must exercise the right to marry with another, as a part of a couple, because marriage is an institution that one can only enter with another (pp.594-595).

Since it takes two or more to assemble, one cannot have a right to assemble unless there are at least two individuals involved. Williams seems to be claiming that it is a purely conceptual matter that the right to assemble is a collective right. So, perhaps Räsänen's argument is that, since marriage requires two people, as a purely conceptual matter, the right to marriage must be a collective right. But even if this is true, it does not follow that the right to the death of the fetus, if it exists, is a collective right, at least not as a purely conceptual matter. This is because, unlike the right to assemble and the right to marriage, it does not take two individuals to secure the death of the fetus. That is, it is not a conceptual truth that two individuals are required to exercise the right to the death of the fetus, if such a right exists. Thus, Räsänen's argument by analogy with marriage fails to show that the right to the death of the fetus is a collective right.

Arguably, if there is a right to the death of the fetus, then the presumption would be that it is an individual right possessed by the pregnant woman, since this is what is currently accepted. While a full theory of the nature of rights is probably too much to demand, the burden of proof is on Räsänen to show that if there is a right to the death of the fetus, then it is not an individual right possessed by the pregnant woman alone. And given that there is virtually universal agreement that rights are essentially distributive, Räsänen should at the very least provide some reason to think that a right to the death of the fetus, if it exists, is not essentially distributive. Consider the way Wellman (1995) puts this point:

> If there is any consensus in these very different conceptions of rights, it is that the concept of a right is essentially distributive, that is, rights are ascribed to and possessed by each individual or entity in a group separately rather than collectively. Whereas the many benefits and harms to various affected parties of any action are summed together in the act's total utility, each individual person has his or her own right that demands respect independently of the rights or welfare of any other individuals (p. 2306).

If this is correct, then any positive support for why we should believe that the right to the death of the fetus is a collective right that Räsänen might provide would need to account for the apparent consensus that rights are essentially distributive. That is, Räsänen owes us an explanation for why there is this widespread consensus. Otherwise, given this apparent consensus, whatever argument Räsänen might provide in support of the claim that there is a collective right to the death of the fetus will probably not be plausible to those who believe rights are essentially distributive.

But this does not conclusively show that the right to the death of the fetus, if it exists, is not a collective right. What is needed is a positive reason to think that that there is no collective right to the death of the fetus. Consider, for example, Reader's (2008) view that the concept of motherhood shows that a woman alone has a right to the death of the fetus. Reader argues:

> First, motherhood confers moral authority on the mother as creator. Second, the unity of motherhood places a prima facie obligation on mothers to continue if they can from procreation to gestation to birth to care, to consider whether they can against the standards set by our concept of motherhood, and, if they cannot, to complete their maternal responsibility early by ending the life of the fetus (p. 144).

If this is correct, then the right to the death of the fetus would not be a collective right possessed by both biological parents. However, there may be reasons to think even Reader's understanding of this right to the death of fetus simply does not exist.

Recently, Mackay (2020) has argued that the possibility of full ectogenesis raises important questions regarding the identity of women, which challenges our traditional understanding of "motherhood." This is because full ectogenesis would cause the apparent link between biology and gender to break down.[28] Hence, one could plausibly reject Reader's view of motherhood by arguing that full ectogenesis would fundamentally change the meaning of motherhood, such that the inherent authority over the fetus is not exclusively tied to being pregnant. This is an important point, since it would show that full ectogenesis has the potential to radically alter the shape of the abortion debate by redefining the concepts employed in the debate. However, it would not show that the right to the death of the fetus, if it exists, is not possessed by an individual person or that rights are not essentially distributive.

Furthermore, Räsänen's claim that the right to the death of the fetus, if it exists, is a collective right faces an important counterexample. Suppose that all of the antecedent conditions of Warren's Conditional obtain and suppose that Sam is 15-weeks pregnant when she is told that the fetus is likely to die unless it is transferred to an artificial womb. If Sam chooses to do nothing at all, then the fetus will surely die. Sam's right to bodily autonomy grounds her right to do nothing. And if Sam is forced to undergo fetal transfer against her will in order to save the fetus, then Sam's right to bodily autonomy would be violated. My argument is that, if Sam exercises her right to bodily autonomy by doing nothing at all, this right would ground a right to the death of the fetus, even when ectogestation is a reasonable option.

In this case, the right to the death of the fetus, if it exists, is not a collective right possessed by the biological parents, since Sam would not need the consent of the biological father to do nothing at all. Rather, it would be an essentially distributive right possessed by the pregnant woman alone, and it would be grounded in her uncontroversial right to autonomy. If this is correct, then there is no collective right to the death of the fetus. Moreover, this counterexample demonstrates that each of the previous arguments in support of the claim that there is a collective right to the death of the fetus is unsound.

[28] For a discussion of this issue, see MacKay 2020, p. 347.

7 Conclusion

In summary, I argued that if ectogestation is possible and the conditions needed to provide the required care for the fetus exist in the moral community, then the woman would not have a right to the death of the fetus. And it was shown that this is true, even if we assume that the fetus is not a person at any point during its gestation. The reason why there is no right to the death of the fetus, even if it is not a person, is because there are competent people willing to love and care for the fetus as it develops into a person. Additionally, I considered several arguments in support of the claim that the right to the death of the fetus is derived from a more basic right, and it was shown that each are of these arguments is unsound. Therefore, it does not follow from a woman's right to end her pregnancy that she likewise has a right to the death of the fetus when ectogestation is possible. This suffices to show that ectogestation will radically transform the problem of abortion.

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