

Contraception is not a reductio of Marquis

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Abstract

Don Marquis' future-like-ours account argues that abortion is seriously immoral because it deprives the embryo or fetus of a valuable future much like our own. Marquis was mindful of contraception being *reductio ad absurdum* of his reasoning, and argued that prior to fertilisation, there is not an identifiable subject of harm. Contra Marquis, Tomer Chaffer contends that the ovum is a plausible subject of harm, and therefore contraception deprives the ovum of a future-like-ours. In response, I argue that being an identifiable subject of harm is not sufficient for Marquis' argument to succeed. In addition, we must also share our identity with an ovum. I show that on the account of personal identity utilised by Marquis' defenders, we are not identical with an ovum. As a result, Chaffer's *reductio* fails.

Keywords

Abortion, contraception, Marquis, future-like-ours

Introduction

Don Marquis, in his future-like-ours account of the immorality of abortion, argues that one important reason that killing us is seriously wrong is because it deprives us of a future filled

with valuable activities, projects and experiences¹. Moreover, because we were once a fetus, killing a fetus deprives it of a future of value just like ours, or what Marquis calls a ‘future-like-ours’. Therefore, killing a fetus is also seriously wrong.

Marquis was well aware that a *reductio ad absurdum* against his argument is contraception. If I was once a fetus, it seems I was also once an ovum and a sperm, or some combination of these. If this is the case, then contraception similarly deprives these entities of a future of value, and so it is also seriously wrong. Anticipating this argument, Marquis claims that there is ‘no nonarbitrarily identifiable subject of the loss in the case of contraception’². This is because there are millions of potential combinations of ovum and sperm, as there are millions of sperm.

Contra Marquis, Tomer Chaffer³ argues that in the case of contraception, there is an identifiable subject of harm: the ovum. This assessment is based on the additional genetic material the ovum provides by way of mitochondrial DNA, the various structures and functions it provides for the embryo, and its ability as a self-directing entity to support parthenogenesis. Therefore, contraception deprives the ovum of a valuable future, and it is immoral, using the same reasoning that Marquis employs to argue that abortion is immoral. As a result, Chaffer believes holding an anti-abortion position based on the embryo or fetus possessing a future-like-ours should also advocate for the ovum, both to protect it from contraception and for its preservation.

In this response, I argue that being an identifiable subject of harm is a necessary requirement for Marquis’ argument to succeed, but not a sufficient one. The identifiable subject of harm must also have a future-like-ours, otherwise it cannot be deprived of it, and we must share our

¹ Marquis, D. (1989). Why abortion is immoral. *The Journal of Philosophy*, 86(4), 183–202.

² *Ibid.*

³ Chaffer, T. J. (2023). Future-like-ours as a metaphysical *reductio ad absurdum* argument of personal identity. *Bioethics*, 1–7. <https://doi.org/10.1111/bioe.13137>.

identity with it. I show that the ovum generally does not have a future-like-ours, and that we do not share our identity with an ovum. Therefore, Chaffer's argument does not succeed.

Identifiable subject of harm

For Marquis' argument to succeed, there must be an identifiable subject of harm. If nothing is harmed by abortion, there is no basis for abortion to be considered immoral. However, this is a necessary requirement, not a sufficient one. Marquis' argument is predicated on his account of why killing us is wrong, which he claims is the deprivation of a future filled with valuable experiences. If the same reasoning is to apply to an embryo or fetus, it too must be deprived of a future filled with valuable experiences. In other words, if the abortion had not occurred, it would have had such a future.

Possession of a future-like-ours is not quite sufficient, though. Marquis' argument works by extrapolating to an earlier stage of our development: if it is wrong to kill me now, then it would also have been wrong to kill me when I was a fetus. This requires that we share our identity with a fetus. If we are not the same entity as the fetus we once were, then it weakens the case that depriving the fetus of its valuable future is wrong. For example, the fetus might *appear* to have a future-like-ours because it is the same biological entity as us, but if, for example, we are essentially psychological entities, then it is arguably us, not our bodies, that have the valuable future⁴. So, the account of personal identity being relied upon by proponents of Marquis must also be considered.

⁴ This is known as the Identity Objection to Marquis. For challenges to the Identity Objection, see Vogelstein, E. (2016) Metaphysics and the future-like-ours argument against abortion. *Journal of Ethics* 20,419–434; Blackshaw, B.P. (2020). Does the Identity Objection to the future-like-ours argument succeed? *Bioethics* 34,203–206.

There are two complementary requirements, then, that Chaffer must satisfy for his *reductio* to succeed. First, the ovum must have a future-like-ours, and second, we must share our identity with an ovum.

An ovum's future

Chaffer acknowledges that a somatic cell chosen at random from the human body does not have a future-like-ours. However, he argues that the existence of embryos produced from parthenogenesis demonstrates that all ova have the capacity to initiate a self-directing mechanism, even if this process is rarely viable in nature. These embryos are known as parthenote embryos, and are not fertilised by a male gamete. The implication is that ova do have a future-like-ours, even though that future is seldom actualised.

According to Chaffer, this has moral implications. He suggests that Marquis' reasoning implies that any entity with a future-like-ours should be preserved, and that we might owe ova a duty of care.

However, current research is clear that parthenogenetic embryos are never viable, even though they occasionally arise. Mammals possess two sets of chromosomes, one inherited from each parent. Normally, both parental genes are active, but Denise Barlow and Marisa Bartolomei explain that for a certain subset of genes, genomic imprinting prevents both of the genes being activated⁵. Importantly, they state that in mammals, these genes are involved in regulating embryonic and fetal growth. As a result, both parental genomes are necessary to produce viable

⁵ Barlow D.P., Bartolomei M.S. (2014) Genomic imprinting in mammals. *Cold Spring Harb Perspect Biol.* doi: 10.1101/cshperspect.a018382

offspring. Similarly, Tian *et al*, whom Chaffer cites, explain that ‘parthenotes arrest at mid-gestation from defects in genomic imprinting and placental malfunction’⁶.

Since parthenogenetic embryos are never viable, they cannot have a future-like-ours. Therefore, ova do not have the self-directing capacity to the extent that Chaffer claims, and do not have a future-like-ours without being fertilised. Of course, it is possible that advances in technology will eventually allow this genomic imprinting to be switched off, but this seems analogous to cloning a somatic cell to produce a viable embryo. In both cases, these cells cannot have a future-like-ours without substantial external intervention.

As a result, ova do not generally have a future-like-ours and are not owed a duty of care. We are not obliged to preserve all ova. However, it still could be that ova that *would* have been fertilised but for contraception have a future-like-ours. In other words, contraception could be depriving these ova of their future-like-ours. To examine this issue requires delving into matters of identity.

An ovum’s identity

If we are identical with the ovum that was fertilised to produce the zygote that developed into us, this means we began to exist prior to fertilisation. In this case, contraception ends our existence by preventing our further development. The question we must resolve is whether we share our identity with that ovum. To answer this question, we need to specify the particular account of identity we are using.

⁶ Tian, C., Liu, L., Zeng, M., Sheng, X., Heng, D., Wang, L., Ye, X., Keefe, D., & Liu, L. (2021). Generation of developmentally competent oocytes and fertile mice from parthenogenetic embryonic stem cells. *Protein & Cell*, 12(12), 947–964.

Proponents of Marquis' reasoning typically hold to some form of *animalism*: the belief that we are animals. As we are human, we are human animals. We begin our existence when our animal begins its existence, and we persist as long as our animal persists. The human animal is, like all animals, an organism, and as Miller and Pruss note, it is "intuitively clear to many, perhaps most, people that fertilisation marks the start of a new human organism"⁷. So, on animalism, we begin to exist from fertilisation. For Chaffer's argument to succeed on animalism, the ovum and the zygote would have to be the same organism.

However, as embryologists Ronan O'Rahilly and Fabiola Müller explain, the new human organism formed at fertilisation is genetically distinct⁸. Although the ovum contributes a little more than 50% of the zygote's genetic material⁹, the genes of the male and female gametes are mixed unpredictably soon after fertilisation, resulting in a diploid genome with 46 chromosomes that is very different to the ovum's haploid genome, which has 23 chromosomes. How much variation in an organism's genome is permitted before it is no longer the same organism? For humans, Miller and Pruss argue for a position they call *moderate genetic essentialism*, which is the thesis that if we are to maintain our identity, we could not have been significantly genetically different at fertilisation. For example, if we had the XX chromosome instead of the XY chromosome, we would be female instead of male, and this would be evidence that we would not have the same identity. Our identity is also different depending on which sperm fertilises the ovum, or what Miller and Pruss call parental essentialism.

⁷ Miller, C, Pruss, A. (2017). Human organisms begin to exist at fertilization. *Bioethics* 31:534–542. Doi: 10.1111/bioe.12369

⁸ O'Rahilly, R., & Mueller, F. (2001). *Human embryology and teratology* (3rd ed.). New York, NY: Wiley-Liss. p. 8.

⁹ The female gamete also provides mitochondrial DNA, which comprises about 1% of cellular DNA. See Habbane M, Montoya J, Rhouda T, Sbaoui Y, Radallah D, Emperador S. (2021). Human Mitochondrial DNA: Particularities and Diseases. *Biomedicines* 9(10):1364. doi: 10.3390/biomedicines9101364.

Sesquizygotic twins are the result of an ovum being simultaneously fertilised by two different sperm, and then splitting. The twins share the same maternal DNA, but have different paternal DNA. It is extremely rare, but in one recent recorded case, one twin was male and the other female¹⁰.

These considerations imply that even if parthenogenesis was capable of producing a viable embryo, it is not plausible that it would be identical to an embryo formed by fertilising the ovum. The parthenogenetic embryo would have a very different genome to a fertilised ovum, and consequently would have very different physical characteristics.

Conclusion

On animalism, the account of personal identity most commonly relied upon by proponents of Marquis' argument, an ovum does not share its identity with the human organism it becomes. Consequently, even ova that would have been fertilised but for contraceptive measures do not have a future-like-ours. Consequently, Chaffer's *reductio* of Marquis' argument does not succeed.

¹⁰ Gabbett, M. T., Laporte, J., Sekar, R., Nandini, A., McGrath, P., Sapkota, Y., Jiang, P., Zhang, H., Burgess, T., Montgomery, G. W., Chiu, R., & Fisk, N. M. (2019). Molecular Support for Heterogonesis Resulting in Sesquizygotic Twinning. *New England Journal of Medicine* 380(9): 842–849. doi: 10.1056/nejmoa1701313.